M.O. 666

AIR MINISTRY
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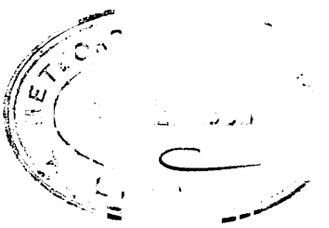

THE OBSERVATORIES' YEAR BOOK

1948

Comprising the meteorological and geophysical results obtained from autographic records and eye observations at the Lerwick, Eskdalemuir, and Kew Observatories

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PREFACE

The *Observatories' Year Book* was published for the years 1922 to 1937 in continuation of Part III Section II and Part IV of the *British Meteorological and Magnetic Year Book* for the period 1908 to 1921.

Publication of the *Observatories' Year Book* was necessarily suspended during the 1939-45 war. Restrictions on supplies and printing since the war resulted in a regrettably long delay in the resumption of publication. In face of the formidable accumulation of arrears, and taking changed requirements into account, it was decided to adopt an abridged form as outlined below.

It was arranged that the General Introduction to the Meteorological Tables and the parts of the Sectional Introductions which deal with site, instruments, precedure and tabulation included in the volume for 1938 should serve as standards of reference for many years; and that only important departures from these standards, together with any requisite additional information, should be included in the relevant parts of the volume for the years after 1938. As compared with the volumes before 1938, the space devoted to the discussion of observations is reduced. Monthly tables of individual hourly values of meteorological elements are omitted, but summaries of daily mean values (or totals), monthly means (or totals) of hourly values and some maximum and minimum values are given. The diary of cloud, weather and visibility is also omitted. No major changes have been made in the atmospheric electrical and magnetic tables. The aerological and seismological tables were discontinued after 1939.

The present volume, 1948, presents atmospheric electrical and geomagnetic data for Lerwick Observatory; meteorological, atmospheric electrical and geomagnetic data for Eskdalemuir; meteorological, atmospheric electrical and atmospheric pollution data for Kew. Aberdeen Observatory closed at the end of 1947.

Manuscript tabulations of hourly values of the meteorological elements are available at the observatories. Requests for information from these tabulations should be addressed to the Director-General, Meteorological Office, Air Ministry, Victory House, Kingsway, London, W.C.2.

NOTE ON THE TABLES: Maximum and Minimum values are shown in italics.

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LERWICK

LERWICK OBSERVATORY

Latitude	60°08'N.
Longitude	1°11'W.
G.M.T. of Local Mean Noon ..	12h. 5m.
Height of site above M.S.L.	80 to 90 metres

INTRODUCTION

Full details of the site, instruments procedure and tabulations are given in the *Observatories' Year Book, 1938*. Only important changes and additions are mentioned here.

Atmospheric electricity

No changes were made in 1948.

Terrestrial magnetism

Until 1946 the chamber was unheated but in June of that year small, low-temperature, thermostatically controlled a.c. electric heaters were installed in order to reduce the persistent damp. The diurnal variation of temperature has continued negligibly small.

The average day-to-day change of temperature in the magnetograph house for each of the twelve months of 1948 and for the year as a whole was as follows (in degrees absolute):

Jan.	*Feb.*	*Mar.*	*Apr.*	*May*	*June*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*Year*
0.35	0.40	0.48	0.52	0.79	0.38	0.27	0.36	0.38	0.83	0.58	0.40	0.48

There were 44 occasions on which the change reached or exceeded 1°A.

Notes on the results

Beginning with 1947 some changes have been made in the tables accompanying these notes. The month by month commentary on the autographic records has been omitted, and a change has been made in the table formerly headed "Principal Magnetic Disturbances". It is intended that all the disturbances, which would have been included in the previous type of table, will still be included, with, however, additional disturbances of the form of sudden commencements and those which can be recognised as being solar flare effects. The table is thus divided into three parts:

(a) Disturbances noteworthy for some reason (usually, but not always, range) and without a sudden commencement.

(b) Well marked, sudden commencements whether followed by a large disturbance or not.

(c) Disturbances accompanying a solar flare or other known solar flare effect.

The time given of commencement and ending of disturbances in (a) must depend on an arbitrary judgment. The list of sudden commencements under (b) will usually be a little shorter than that given in the International Association of Terrestrial Magnetism and Electricity Bulletins because a somewhat stricter meaning has been given to the words "well marked", and also because the sharp beginnings of small polar disturbances have been omitted.

The (c) table has been made as complete as possible by a careful scrutiny of the magnetograms at the time of any known solar flare or solar flare effect, but a small "crochet" can be easily be masked by other disturbance. The signs given to the movements of *H*, *D* and *V* are positive for increasing *H* or *V* and an increase of force towards the east (i.e. a decreasing westerly declination).

Particulars of the same disturbances are given in both the Lerwick and the Eskdalemuir sections of the *Observatories' Year Book*, even if the disturbance at one of the stations is relatively small.

The factor to change variations of *D* expressed in minutes of arc to units of force (γ) perpendicular to the magnetic meridian was approximately 4·18. Comparing the mean values for all days of 1948 with those for 1947 it is noted that *H* increased by 8γ, *D* (west) decreased by 7′·8 and *V* increased by 7γ. The ranges between the extreme values recorded in 1948 were *H* 1992γ, *D* 4° 15′·6 and *V* 1044γ.

The *K* index is fully described in *Terrestrial Magnetism and Atmospheric Electricity*.* Briefly, a figure is allotted on a scale 0-9 to each three-hour interval. The figure is a measure of the range of magnetic force during that period, measured from a curved line which represents the normal quiet-day variation. The figures are first allotted from the *H* magnetogram, and then increased, if necessary, by inspection of the *D* and *V* curves, so that the most disturbed component determines the final figure. The scale of ranges in γ corresponding to the figures 0-9 varies from observatory to observatory. The lower limit of each number for Lerwick is:

K	0	1	2	3	4	5	6	7	8	9
Range in γ	0	10	20	40	80	140	240	400	660	1000

TABLE 1 - ABSOLUTE DAILY RANGE AND MEAN MONTHLY VALUES

	Mean absolute daily range						Mean daily range expressed as percentage of yearly mean					
	1948			Mean 1932-42			1948			Mean 1932-42		
	H	*D*	*V*	*H*	*D*	*V*	*H*	*D*	*V*	*H*	*D*	*V*
	γ	γ	γ	γ	γ	γ	%	%	%	%	%	%
January	80	98	97	94	96	96	48	84	71	65	92	80
February	99	92	104	110	106	114	59	79	76	76	102	95
March	162	122	135	196	138	165	96	104	99	136	133	137
April	158	112	128	206	123	160	94	96	94	143	118	133
May	244	120	161	181	103	129	145	103	118	126	99	107
June	138	96	94	135	88	100	82	82	69	94	84	83
July	140	97	92	153	90	107	83	83	68	106	86	89
August	212	135	153	151	98	108	126	115	113	105	94	90
September	157	107	139	159	114	138	93	91	102	111	110	115
October	322	187	250	160	119	141	192	160	184	111	114	117
November	175	130	154	93	92	99	104	111	113	65	88	82
December	125	106	130	85	87	88	74	91	96	59	84	73
Winter	120	107	121	96	95	100	71	91	89	67	91	83
Equinox	200	132	163	180	124	151	119	113	120	125	119	126
Summer	183	112	125	155	95	111	109	96	92	108	91	92
Year	168	117	136	144	104	120	..	..	..	..	..	..

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

*BARTELS, J., HECK, N.H. and JOHNSTON, H.F.: The three-hour-range index measuring geomagnetic activity. *Terr. Magn. atmos. Elect., Baltimore*, **44**, 1939, p.411.

TABLE 2 - FREQUENCY DISTRIBUTION OF ABSOLUTE DAILY RANGE

Range	Number of cases, 1948			Percentage distribution					
				H		*D*		*V*	
	H	*D*	*V*	1948	1932-42	1948	1932-42	1948	1932-42
γ				%	%	%	%	%	%
0 - 9	0	0	0	0·0	0·0	0·0	0·0	0·0	0·5
10 - 19	2	0	13	0·5	1·8	0·0	0·5	3·6	8·2
20 - 29	7	3	24	1·9	5·2	0·8	2·6	6·6	12·2
30 - 39	11	12	30	3·0	7·4	3·3	4·8	8·2	9·9
40 - 49	26	15	25	7·1	7·7	4·1	8·6	6·8	7·4
50 - 59	26	19	31	7·1	10·3	5·2	11·3	8·5	6·0
60 - 69	27	36	19	7·4	10·2	9·8	13·9	5·2	5·2
70 - 79	23	42	25	6·3	9·7	11·5	9·8	6·8	4·8
80 - 89	24	46	18	6·6	7·8	12·6	9·2	4·9	3·8
90 - 99	25	33	11	6·8	5·6	9·0	6·5	3·0	3·3
100 - 109	21	33	15	5·7	4·1	9·0	4·8	4·1	3·6
110 - 119	25	25	13	6·8	2·9	6·8	3·6	3·6	2·7
120 - 129	17	16	9	4·6	2·6	4·4	3·4	2·5	2·5
130 - 139	23	14	12	6·3	1·7	3·8	3·3	3·3	2·2
140 - 149	12	10	11	3·3	2·1	2·7	3·0	3·0	2·2
150 - 159	9	8	5	2·5	1·3	2·2	1·6	1·4	1·9
160 - 169	6	9	9	1·6	1·5	2·5	1·5	2·5	1·8
170 - 179	4	2	5	1·1	1·0	0·5	1·4	1·4	1·1
180 - 189	4	6	8	1·1	0·9	1·6	1·2	2·2	1·5
190 - 199	4	2	5	1·1	1·0	0·5	0·9	1·4	1·5
200 +	70	35	78	19·1	15·2	9·6	8·0	21·3	17·8
Days omitted	0	0	0	..	..	..	..	..	..

TABLE 3 - AVERAGE RANGE OF DIURNAL INEQUALITY 1932-42 WITH 1948 AS A PERCENTAGE OF THIS

		All days			International quiet days			International disturbed days		
		V	*H*	*D*	*V*	*H*	*D*	*V*	*H*	*D*
		γ	γ	′	γ	γ	′	γ	γ	′
Year	1932-42	47·5	46·7	9·04	9·3	36·5	8·30	118·9	117·1	13·55
	1948(%)	122	128	119	125	134	128	123	113	111
Winter	1932-42	38·0	23·4	7·60	7·3	14·7	4·32	110·2	79·3	12·83
	1948(%)	127	140	126	126	165	132	113	137	115
Equinox	1932-42	60·0	54·3	10·60	11·6	41·4	9·25	150·3	167·2	18·61
	1948(%)	114	109	109	133	125	125	117	106	103
Summer	1932-42	47·6	69·7	12·38	15·6	55·8	12·14	124·3	140·3	14·59
	1948(%)	124	132	122	142	136	129	116	108	113

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

TABLE 4 – RATIO OF RANGE OF INEQUALITY AT LERWICK TO THAT AT ESKDALEMUIR 1948

Type of day	Element	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
q	*D*	0·98	1·10	1·07	1·00	1·09	1·07	1·11	1·11	0·96	1·01	1·01	1·22
d	*D*	1·16	1·21	1·31	1·53	1·17	1·05	1·12	1·44	1·03	1·50	1·20	1·20
q	*H*	0·90	0·94	1·08	1·12	1·20	1·19	1·20	1·13	1·07	0·95	1·04	0·91
d	*H*	1·98	1·08	2·72	2·28	2·05	1·30	1·18	2·07	1·47	2·91	4·58	3·99
q	*V*	1·37	2·70	0·90	0·47	0·95	0·81	0·76	0·85	1·57	1·61	1·11	1·83
d	*V*	1·39	2·10	1·50	2·03	1·84	2·18	2·16	1·75	2·08	1·23	1·88	2·32

TABLE 5 – NOTEWORTHY MAGNETIC DISTURBANCES AT LERWICK

(a) Disturbances without S.C's

Serial Number	From Date	From Hour	To Date	To Hour	Range (γ) *H*	Range (γ) *D*	Range (γ) *V*	Notes
1a	Jan. 3	10	Jan. 3	23	583	382	496	
2a	Mar. 14	15	Mar. 15	24	1527	620	750	
3a	Apr. 20	21	Apr. 21	04	900	752	760	
4a	May 14	13	May 17	03	1111	456	555	
5a	May 21	00	May 23	09	924	216	383	
6a	Oct. 14	06	Oct. 15	24	850	359	503	
7a	Nov. 1	17	Nov. 3	05	938	417	562	
8a	Nov. 20	11	Nov. 21	07	916	471	676	
9a	Dec. 25	13	Dec. 26	05	839	269	330	

(b) Disturbances with a S.C.

Serial Number	Date	Time of S.C.	End of Disturbance Date	End of Disturbance Hour	With initial reversed stroke *H*	With initial reversed stroke *D*	With initial reversed stroke *V*	Magnitude main stroke of S.C. *H* γ	Magnitude main stroke of S.C. *D* γ	Magnitude main stroke of S.C. *V* γ	Range of following disturbance (γ) *H*	Range of following disturbance (γ) *D*	Range of following disturbance (γ) *V*
1b	Jan. 27	06.37			No	Yes	No	+6	−13	0		Small	
2b	Feb. 3	02.08			No	Yes	No	+23	−21	−6		Small	
3b	Feb. 10	02.02			No	Yes	No	+12	−11	−3		Small	
4b	Feb. 26	19.34			Yes	No	Yes	+25	−8	−6		Small	
5b	Mar. 30	17.20			Yes	No	Yes	+30	−8	−3		Small	
6b	Apr. 6	03.57			Yes	Yes	Yes	+30	−32	−6		Small	
7b	June 11	19.00			Yes	No	No	+36	−8	−7		Small	
8b	July 26	08.40			Yes	Yes	No	−12	−8	−3		Small	
9b	Aug. 4	09.50	Aug. 5	19	Yes	Yes	No	−5	+11	−2	208	119	132
10b	Aug. 7	03.10			Yes	Yes	Yes	+22	−21	−4		Small	
11b	Aug. 7	23.00	Aug. 13	08	Yes	Yes	Yes	+45	−25	−10	1351	646	787
12b	Aug. 19	19.37	Aug. 22	01	Yes	No	Yes	+57	−13	−18	348	320	429
13b	Sept. 12	11.26			Yes	Yes	No	+19	+13	−3		Small	
14b	Sept. 21	18.58			No	Yes	Yes	+37	−13	−12		Small	
15b	Oct. 1	01.13	Oct. 4	01	No	Yes	Yes	+25	−21	−12	500	273	363
16b	Oct. 17	22.10	Oct. 19	21	No	No	Yes	+28	+84	−90	1531	807	884
17b	Dec. 30	13.43	Dec. 31	19	Yes	Yes	No	−4	+4	−2	648	183	481

(c) Disturbances due to Solar Flare

Serial Number	Date	Commence-ment	Max.	End	Movement (γ) *H*	*D*	*V*	*K*	*K'*	Flare or S.F.E.
1c	Mar. 11	12.13	12.27	?	-9	+4	0	2	2	S.P.A. F.O. Flare 3.
2c	Mar. 20	12.23	12.28	12.50	-25	+13	+15	3	2	S.P.A. F.O.
3c	Apr. 20	12.23	12.28	12.50	-27	+8	+11	3	2	S.P.A. F.O.
4c	Dec. 9	11.48	12.00	12.08	-14	+4	+5	2	1	F.O.
5c	Dec. 23	12.10	12.22	12.35	-14	0	+6	2	1	F.O.

F.O. = Fade out. S.P.A. = Sudden Phase Anomaly.

POTENTIAL GRADIENT (reduced to level surface)
Mean values for periods of sixty minutes between exact hours, G.M.T.

6 LERWICK

	JANUARY, factor 1·12				FEBRUARY, factor 1·11				MARCH, factor 1·12			
	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
	volts per metre											
1	51	127	91	-102	-	-	-	-	179	194	214	-15
2	102	71	147	193	-	-	1633	-184	-30	80	40	-5
3	-142	-10	91	81	174	189	50	85	-5	80	70	40
4	56	101	152	101	-254	10	40	85	0	20	45	40
5	91	96	131	(20)	159	-90	-95	-483	-5	40	214	294
6	-	-	-	-	129	75	30	214	349	514	429	219
7	00	45	00	197	45	5	154	104	195	249	279	469
8	-	-	-	-	45	75	124	189	20	5	-5	-5
9	91	151	126	615	-	-	189	139	-10	-30	-40	-25
10	96	111	141	191	75	-65	60	94	95	30	170	150
11	151	106	312	811	59	84	144	99	145	75	80	130
12	-131	10	81	101	55	84	139	109	95	65	55	115
13	45	-45	-10	151	104	109	159	74	85	135	120	130
14	95	126	206	65	79	104	-	-	145	195	255	215
15	-90	20	161	100	119	139	94	-	275	415	115	465
16	115	151	251	145	94	124	144	144	5	366	442	452
17	100	156	266	25	55	89	109	139	778	105	191	251
18	-	-	-	-	69	109	104	144	95	191	120	95
19	-20	190	-	741	89	79	89	119	-336	141	100	100
20	Z-	150	200	210	94	109	-	144	00	101	-45	55
21	125	155	225	920	-15	25	-	-	136	101	55	146
22	155	150	160	170	-	-	154	159	-	111	101	80
23	-	-	25	-55	94	114	144	79	60	55	10	50
24	-	-	-	-	-	-	-	-	-	-30	50	151
25	-	-	-	-	169	124	149	154	50	55	5	176
26	-	-	-	-	45	10	40	94	55	162	202	202
27	-	-	-	-	104	154	154	124	106	15	247	96
28	-	-	-	-	70	10	144	194	273	242	273	404
29	-	-	-	-	144	149	209	259	147	147	187	552
30	-	-	-	-					157	132	56	106
31	-	-	-	-					81	116	152	-293
(a)	91	113	154	269	94	90	185	134	147	143	153	199
(b)	54	89	149	223	76	72	105	101	108	138	139	159
Mean	(a) 157		(b) 129		(a) 126		(b) 89		(a) 161		(b) 136	

	APRIL, factor 1·14				MAY, factor 1·15				JUNE, factor 1·17			
	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
	volts per metre											
1	91	-71	233	132	57	154	185	170	-	104	151	-1214
2	20	15	106	157	149	133	149	103	-	-	-	276
3	96	-106	482	76	62	98	98	154	-	-	-	-
4	91	71	101	112	154	211	180	-149	-146	-	-	-
5	112	91	-	-	-313	82	149	303	-	157	198	621
6	76	97	102	-198	288	309	371	247	219	209	355	-104
7	46	102	51	-	155	221	98	196	-209	94	(261)	-
8	-	-	-	-	108	129	309	155	-	-	-	-
9	-	-	142	107	62	206	103	196	-	(26)	52	99
10	102	107	224	168	98	-320	201	-10	-	157	110	157
11	148	56	107	377	41	-5	-103	15	-	131	147	183
12	56	102	112	-51	-	-	-	-	100	115	157	204
13	51	-36	46	107	-	-	-	-	100	121	210	262
14	235	153	46	148	-	-	-	-	278	252	204	215
15	107	46	36	97	175	144	93	150	58	158	110	158
16	102	199	229	556	-	-	-	-	116	100	157	215
17	301	209	255	362	-	93	119	72	147	179	152	210
18	97	92	97	312	-	52	93	109	110	152	105	205
19	261	301	-296	72	-16	83	-36	-10	153	210	158	200
20	41	46	102	148	10	47	47	10	147	153	210	174
21	97	61	255	460	-41	47	-57	26	105	200	158	174
22	143	205	148	195	155	(181)	93	47	184	153	100	189
23	205	102	282	154	109	36	-265	145	126	169	158	206
24	302	348	200	266	52	145	208	228	158	169	169	206
25	97	123	148	97	62	125	-436	-156	153	190	105	163
26	97	522	31	143	-	130	52	135	158	5	290	164
27	-	-	-	-	-	-	-	-	153	158	264	259
28	97	108	67	139	-	-	-	-	164	100	100	-95
29	113	133	108	144	-	-	73	78	69	95	111	111
30	108	154	123	174	52	47	94	(151)	100	121	164	201
31					-	94	94	151				
(a)	122	143	147	196	105	126	140	135	140	141	168	211
(b)	125	121	134	174	71	104	74	99	140	150	172	166
Mean	(a) 152		(b) 139		(a) 127		(b) 87		(a) 165		(b) 157	

The potential gradient is reckoned as positive if the potential increases upwards. For indeterminate potential gradient the following notation is used: Z+, indeterminate, positive value· Z-, indeterminate, negative value· Z±, indeterminate, in magnitude and sign.

(a) Mean of all positive readings.

(b) Mean from all complete days using both positive and negative readings.

POTENTIAL GRADIENT(reduced to level surface)
Mean values for periods of sixty minutes between exact hours, G.M.T.

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	JULY, factor 1·14				AUGUST, factor 1·09				SEPTEMBER, factor 1·10			
	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
	volts per metre											
1	206	132	164	201	441	540	297	54	10	-292	-219	199
2	174	121	-	-	59	109	99	64	102	340	170	190
3	169	200	148	169	89	158	173	168	156	506	93	102
4	-363	-5	-289	105	138	113	44	-	-10	181	146	44
5	53	205	110	142	-	-	-	-	-	-	-	-
6	116	158	121	200	132	142	-	-	-	-	-	-
7	162	173	110	152	-	172	152	-	88	142	-	103
8	115	110	58	99	49	59	63	44	103	(64)	-	118
9	151	177	0	209	54	(107)	78	127	93	(191)	162	186
10	214	229	26	208	122	190	151	175	98	44	93	-
11	104	406	151	177	156	204	243	369	-	-	172	-
12	326	171	109	31	214	199	185	151	-	-	-	-
13	72	222	109	196	121	150	141	184	-	-	-	104
14	258	52	41	263	58	160	184	189	25	148	188	247
15	155	310	155	113	-	141	92	160	119	208	188	89
16	-	-	77	82	97	111	97	-	114	248	298	347
17	67	118	148	113	-	-	-	39	382	421	89	298
18	-	-	-	-	87	97	87	87	338	373	248	234
19	-	-	5	-31	92	48	87	92	90	169	45	209
20	-	-	-	260	92	97	92	102	100	90	-95	75
21	-	-	-	-	102	189	169	140	155	200	145	100
22	-	-	-	-	-106	218	150	581	150	55	115	-85
23	-	-	-	-	77	48	(82)	286	146	206	50	110
24	-	-	-	-	63	194	-	-	70	-342	30	-151
25	-	-	-	-	-	-	24	150	91	76	101	136
26	-	-	-	-	92	92	102	102	212	247	-10	455
27	-	-	-	-	87	102	92	179	213	147	86	-106
28	140	630	215	460	-	141	398	-	152	304	426	497
29	50	398	174	164	-	-	-	-	147	218	152	198
30	60	194	154	244	-	-	224	92	112	234	153	173
31	298	342	298	248	92	141	379	97				
(a)	152	229	119	183	114	151	149	158	136	209	150	192
(b)	124	222	105	184	104	153	150	168	135	179	116	161
Mean	(a) 171		(b) 159		(a) 146		(b) 148		(a) 172		(b) 148	

	OCTOBER, factor 1·18				NOVEMBER, factor 1·22				DECEMBER, factor 1·22			
	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
	volts per metre											
1	102	239	320	259	135	198	203	155	26	34	434	473
2	51	107	102	112	144	201	340	268	422	129	-	-
3	1055	148	148	158	189	-5	151	90	-	-	250	99
4	-	-	-	250	-5	<-1784	-558	106	26	-4	13	43
5	128	138	143	250	88	-74	152	148	47	60	39	34
6	143	205	107	-	64	224	133	137	43	26	22	0
7	-	97	77	251	104	100	136	159	43	26	-194	-26
8	103	154	170	154	86	140	230	171	30	0	-	30
9	118	124	232	263	-72	-883	170	134	48	56	178	13
10	619	1063	728	955	111	164	178	182	-4	4	134	385
11	202	259	93	269	111	133	128	124	0	-4	208	174
12	78	186	243	207	119	141	132	167	-82	-347	91	516
13	150	202	326	207	118	267	13	131	222	213	222	9
14	52	-269	10	155	210	188	428	376	4	4	648	387
15	47	104	166	-	214	196	-292	148	-467	105	-	-
16	155	218	207	259	39	104	122	-	-	-	127	131
17	155	285	-109	104	-	-	187	191	127	101	26	0
18	114	259	104	98	122	135	148	39	44	166	92	0
19	186	202	150	31	43	121	294	95	277	127	4	101
20	-135	197	26	10	86	324	47	95	79	88	110	92
21	5	52	0	217	-39	69	116	168	44	48	145	176
22	-494	309	-41	93	95	77	73	91	128	132	137	172
23	41	46	118	200	95	207	151	164	164	186	93	155
24	51	205	-195	-77	125	168	-	-	44	4	128	111
25	107	5	189	92	301	172	525	172	89	84	97	182
26	112	467	335	61	47	305	301	378	350	408	425	350
27	356	152	229	152	176	90	99	211	147	138	182	133
28	150	140	261	110	39	-4	47	82	13	129	-223	218
29	84	194	174	149	39	86	-	-	-	-	0	370
30	148	163	25	148	9	151	39	13	-	-	94	508
31	293	220	29	191					-	-	139	451
(a)	178	212	175	193	112	165	175	155	105	99	155	190
(b)	148	202	149	179	104	105	158	156	82	73	131	161
Mean	(a) 189		(b) 169		(a) 152		(b) 131		(a) 137		(b) 112	

The factor used for converting the potential at the collector to potential gradient in volts per metre in the open is given for each month.

Annual means				
(a)	125	152	156	185
(b)	106	134	132	161
	(a) 155		(b) 133	

POTENTIAL GRADIENT (reduced to level surface): DIURNAL INEQUALITIES

The departures from the mean of the day are adjusted for non-cyclic change†

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	Hour G.M.T. 0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Non-cyclic change†	No. of days used	Mean
	volts per metre																										v./m.
	0a days only*																										
Jan.	Nil																									0	
Feb.	+4	-7	-9	-2	+2	-10	-8	+26	+9	-8	+20	+33	+15	+19	+17	+19	+13	-9	-12	-33	+5	-3	-29	-51	-3	1	122
Mar.	-32	-36	-31	-50	-40	-55	-35	-47	-6	-36	-23	-26	+12	-2	-3	+21	+31	+78	+124	+96	+44	+27	+2	-12	+13	6	226
Apr.	Nil																									0	
May	Nil																									0	
June	-4	-16	-25	-29	-24	-17	+1	+5	+9	-9	-12	-5	+1	-6	-10	-4	0	+13	+5	+12	+49	+36	+23	+7	-9	6	153
July	-48	-56	-60	-52	-50	-8	+62	+90	+93	+41	+59	+61	+35	-13	-40	-15	-5	-17	-7	+27	+13	-13	-47	-51	+47	6	223
Aug.	-11	-23	-28	-28	-20	+5	0	+18	+16	+18	+16	+17	+1	-1	+2	+18	+25	+8	-4	-1	+10	+2	-8	-30	-11	12	150
Sept.	-2	-4	+7	-6	-26	-40	0	+45	+89	+29	-4	-21	-62	-88	-62	-23	0	+4	+29	+3	+17	+33	+63	+17	+17	3	195
Oct.	-15	-15	-20	-14	-17	-28	-29	-47	-31	-23	-9	+27	+27	-9	+6	-5	+18	+97	+121	+53	-27	-41	-15	-1	+102	4	185
Nov.	-37	-25	-27	-34	-42	-27	-26	-21	-12	+6	+10	+30	+11	+6	+28	+54	+47	+68	+51	+12	-7	-31	-23	-19	+84	6	190
Dec.	-25	-37	-12	-19	-12	+23	-2	+7	-4	+17	-25	-18	-1	+10	+12	+25	+7	+16	+13	+28	+25	-7	-13	-7	+1	4	174
Year	-19	-24	-23	-26	-25	-17	-4	+8	+18	+4	+4	+11	+4	-9	-6	+10	+15	+29	+36	+22	+14	0	-5	-16	+27	48	180
Winter	-19	-23	-16	-18	-17	-5	-12	+4	-2	+5	+2	+15	+8	+12	+19	+33	+22	+25	+17	+2	+8	-14	-22	-26	+27	11	162
Equinox	-16	-18	-15	-23	-28	-41	-21	-16	+17	-10	-12	-7	-8	-33	-20	-2	+16	+60	+91	+51	+11	+6	+17	+1	+44	13	202
Summer	-21	-32	-38	-36	-31	-7	+21	+38	+39	+17	+21	+24	+12	-7	-16	0	+7	+1	-2	+13	+24	+8	-11	-25	+9	24	175
	1a and 2a days only*																										
Jan.	-6	-40	-34	-23	-25	-32	-29	-27	-1	+23	+27	+6	+3	+25	+42	+40	+11	+18	+5	0	+7	+6	+1	+3	+50	11	71
Feb.	-60	-56	-60	-61	-55	-48	-46	-50	-24	-26	-16	+16	+23	+31	+43	+39	+57	+58	+82	+88	+98	+10	+17	-58	-110	9	92
Mar.	-68	-40	-34	-39	-41	-26	-23	-16	-10	+1	+33	+37	+29	+36	+18	+30	+27	+19	+18	0	-3	+10	+40	+1	-12	14	93
Apr.	-38	-27	-16	-15	-18	-7	+6	-8	-2	-33	-24	-11	-25	-7	-8	-3	+2	+23	+40	+55	+58	+48	+19	-10	+7	16	151
May	-44	-25	-32	-41	-1	-11	-16	+10	+18	+15	+1	-20	-17	-6	+14	+19	+39	+33	-2	+3	+31	+20	+20	-8	-30	8	121
June	+1	-16	-6	-22	+5	+10	-1	+13	-13	-10	-38	-27	-29	-8	+28	+31	-15	-13	+32	-12	+18	+36	+23	+14	+14	10	146
July	+14	-5	-12	-20	-30	-10	+15	+39	+63	+15	-10	-12	+5	-30	-45	-45	-26	-25	-30	-4	+46	+45	+35	+27	-26	13	115
Aug.	-1	-16	-60	-69	-14	-7	-16	+13	-3	+5	+32	+2	-14	-35	+24	+6	+35	+21	+57	+32	+63	+12	-45	-20	+13	6	123
Sept.	-19	-7	-3	+1	-36	-27	+13	+13	+58	+46	+30	0	-16	-25	+9	+11	+13	+10	+20	+53	+36	0	-79	-99	-4	13	147
Oct.	-40	-28	-51	-19	+1	+19	+23	+21	+23	+14	-12	+1	-11	+21	-83	+33	+49	+43	+37	+20	+9	-15	-21	-33	+23	4	105
Nov.	-1	-24	-27	+11	-4	-3	-43	-21	-2	-2	-5	-2	+31	+32	+1	-22	+43	+29	+14	+9	+15	-4	-9	-17	-46	11	122
Dec.	-41	-16	-29	-37	-31	-35	-39	-40	-53	-57	+5	+14	+53	+60	+46	+67	+49	+24	+31	+44	+46	+2	-20	-43	+14	16	108
Year	-25	-25	-30	-28	-21	-15	-13	-4	+5	-1	+2	0	+3	+8	+7	+17	+24	+20	+25	+24	+35	+14	-2	-20	-9	131	116
Winter	-27	-34	-37	-27	-29	-29	-39	-35	-20	-15	+3	+9	+27	+37	+33	+31	+40	+32	+33	+35	+41	+3	-3	-29	-23	47	98
Equinox	-41	-25	-26	-18	-23	-10	+5	+3	+17	+7	+7	+7	-6	+6	-16	+18	+23	+24	+29	+32	+25	+11	-10	-35	+3	47	124
Summer	-7	-15	-27	-38	-10	-5	-5	+19	+16	+6	-4	-14	-14	-20	+5	+3	+8	+4	+14	+5	+39	+28	+8	+3	-7	37	126

Winter: January, February, November, December
Equinox: March, April, September, October
Summer: May to August.

* For explanation of 0a, 1a, 2a days see p.16. *Observatories' Year Book, 1938*

† See p.10. *Observatories' Year Book, 1938.*

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	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE	
	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Characte	Duration of negative potential gradient
		hr.		hr.		hr.		hr.		hr.		hr.
1	2a	5·3	(1a)	-	1a	1·0	2b	9·0	1b	2·9	2b	5·5
2	1a	0·7	(2b)	-	2a	6·1	1a	2·1	1b	0·8	(2b)	-
3	2a	5·3	1b	1·2	1a	2·0	1b	2·6	1b	0·3	(1a)	-
4	1a	1·6	2b	6·5	1a	2·3	1b	1·9	2b	6·0	(1a)	(2·3)
5	1a	0·5	2b	3·2	1a	0·9	(1a)	-	2b	7·3	(1a)	(0·4)
6	(1b)	-	2b	4·3	0a	···	1b	1·1	1a	0·5	2b	4·0
7	2a	3·9	1b	2·3	1a	0·3	(1b)	-	1a	1·5	(2b)	-
8	(2b)	-	2a	3·2	2a	9·9	(1b)	-	1a	1·7	(1a)	-
9	0b	···	(2b)	-	2a	18·3	(1a)	-	1a	2·3	(1a)	-
10	1b	0·2	1b	2·8	1b	1·9	1a	0·7	2b	5·9	(1a)	-
11	1b	1·9	2a	3·4	0a	···	(1a)	(0·6)	2b	9·5	(1a)	-
12	2a	8·1	1b	1·8	1a	0·9	2b	3·6	(1b)	-	1a	0·1
13	2a	7·0	1b	1·7	0a	···	2a	5·4	(1b)	-	1a	0·1
14	1a	0·5	(2a)	-	0a	···	1a	1·8	(1a)	-	1a	0·1
15	2a	8·3	(1a)	-	1b	2·1	2a	4·3	1a	0·6	1a	0·1
16	1a	0·1	0a	···	1b	1·7	1a	0·5	(1a)	-	1a	2·3
17	1b	1·7	1a	1·0	1b	1·6	1a	0·1	(1a)	-	0a	···
18	(2b)	-	1a	0·6	1b	2·1	2b	6·6	(1a)	-	0a	···
19	2c	7·9	1a	0·1	2b	5·9	2b	7·3	(1a)	-	1a	0·1
20	2c	5·4	(1b)	(0·4)	2b	10·6	1a	1·1	2a	4·8	1b	1·6
21	1b	0·5	(1a)	-	(1b)	(2·7)	1a	0·6	2a	5·9	1b	1·9
22	0b	···	(1a)	-	(1a)	-	1a	0·4	2b	4·8	1b	1·2
23	(1b)	-	1b	1·3	(1a)	(1·4)	1a	1·6	2b	7·0	0a	···
24	(0a)	···	(1a)	-	(2a)	-	1a	1·2	1b	2·3	0a	···
25	(2b)	-	1b	0·2	1a	1·9	1a	0·9	1b	2·9	0a	···
26	(2b)	-	1a	1·3	1a	0·7	2a	4·3	1b	2·7	2a	4·2
27	(2b)	-	1a	0·1	1a	1·6	(1a)	-	(1a)	-	1a	2·2
28	(1a)	-	1a	0·6	0a	···	1a	0·8	(1a)	-	2a	3·1
29	(2b)	-	1a	0·1	0a	···	1b	0·8	(1a)	-	1a	0·7
30	(1b)	-			1a	1·6	1a	0·6	1a	0·6	0a	···
31	(1b)	-			2a	4·7			(1a)	-		
Total	42	58·9	36	36·1	32	82·2	37	59·9	39	70·3	30	29·9
No. of days used	31	20	29	21	31	29	30	25	31	20	30	23
Mean	1·35	2·9	1·24	1·7	1·03	2·8	1·23	2·4	1·26	3·5	1·00	1·3

	JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient
		hr.		hr.		hr.		hr.		hr.		hr.
1	0a	···	0a	···	2b	10·7	1b	0·6	1a	0·7	1a	0·3
2	(1a)	-	0a	···	1a	1·6	1b	1·3	0a	···	(1a)	-
3	1a	0·4	0a	···	1a	1·3	1b	1·8	1a	2·2	(1a)	-
4	2a	14·1	(0a)	···	(1a)	-	(0a)	···	2c	14·8	1a	1·2
5	1a	0·7	(0a)	···	(1a)	-	0a	···	2b	6·2	1a	0·2
6	0a	···	(0a)	···	(1a)	-	(1a)	-	1b	0·5	1a	1·0
7	1a	0·7	(0a)	···	(1a)	-	(1a)	-	0a	···	2b	10·1
8	2a	3·5	0a	···	(1a)	-	0a	···	1b	0·3	(2b)	-
9	1a	1·6	0a	···	0a	···	0a	···	2c	9·1	1a	1·0
10	1a	0·5	(0a)	···	(0a)	···	1b	1·1	0a	···	1a	2·1
11	1a	1·0	0a	···	(1a)	-	1b	0·2	0a	···	(1a)	-
12	1a	2·6	0a	···	(1a)	-	1b	0·2	2b	3·5	2a	6·5
13	1a	0·1	0a	···	(1a)	-	2b	4·2	2b	3·2	1a	1·1
14	1a	1·5	0a	···	1a	0·3	2b	7·7	0a	···	1a	1·7
15	1a	0·3	(0a)	···	1a	0·4	2c	3·9	1a	2·5	(2b)	-
16	(2a)	-	(1a)	-	1a	0·3	1b	0·7	(1a)	-	(2b)	-
17	1a	1·5	(1a)	-	0a	···	2c	6·7	(1b)	-	1a	2·9
18	(1a)	-	1a	0·1	1a	0·7	2b	3·5	1b	0·7	1a	0·9
19	(2a)	-	1a	0·4	1b	1·8	1b	2·4	1a	0·6	1a	0·2
20	(1a)	-	1a	0·1	2b	5·3	1b	2·5	1a	2·0	1a	0·1
21	(1a)	-	0a	···	1c	1·7	1a	1·4	1a	0·7	1a	0·3
22	(1a)	-	1a	1·7	1b	2·2	2b	7·3	1a	2·0	1a	0·3
23	(1a)	-	0a	···	1a	0·1	1a	0·1	0a	···	0a	···
24	(1a)	-	(1b)	-	2a	15·1	2a	3·6	(0a)	···	0a	···
25	(1a)	-	(2a)	-	2a	3·1	2b	3·9	1a	0·3	0a	···
26	(1a)	-	0a	···	2a	4·3	1b	0·9	(1b)	-	0a	···
27	(0a)	···	1a	0·1	1a	2·6	1b	0·4	1a	0·5	1a	1·6
28	0a	···	(0a)	···	1a	0·6	0a	···	1a	1·5	2b	6·5
29	0a	···	(1a)	-	1a	0·1	1a	0·3	(1a)	-	(1b)	-
30	0a	···	(0a)	···	0a	···	2b	5·5	1a	1·0	(1b)	-
31	0a	···	1a	1·5			2b	6·4			(1b)	-
Total	28	28·5	12	3·9	31	52·2	36	66·6	28	52·3	33	38·0
No. of days used	31	20	31	26	30	22	31	29	30	26	31	22
Mean	0·90	1·4	0·39	1·5	1·03	2·4	1·16	2·3	0·93	2·0	1·06	1·7

Annual values: Character frequency 0 1 2
No. of days used 63 222 81

Mean character figure 1·05 (366 days)

Duration: Total 578·8
No. of days 283
Mean 2·05

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

9 LERWICK (H) — 14,000γ (0·14 C.G.S. unit) + — JANUARY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	376	374	375	377	379	379	385	377	369	361	359	356	359	363	371	357	357	364	378	361	362	368	356	330	366
2 *d*	350	353	357	355	355	380	375	365	368	360	353	350	351	351	354	365	384	415	485	401	366	363	346	350	369
3 *d*	358	357	354	355	364	365	350	363	353	351	353	345	329	368	455	649	617	663	613	485	325	310	320	327	*405*
4 *q*	322	326	333	333	337	337	340	340	337	333	328	326	329	330	335	337	343	351	352	352	360	360	358	357	*340*
5	355	354	357	356	360	364	365	360	360	357	350	340	336	340	344	348	358	350	353	363	354	357	360	359	354
6	360	360	360	364	367	360	372	377	356	345	355	353	350	352	346	355	368	353	351	364	365	365	327	352	357
7	359	360	363	363	368	375	378	374	347	361	358	356	339	338	355	362	367	359	360	363	368	370	354	349	360
8 *d*	349	348	347	346	355	379	374	369	360	360	353	344	317	337	352	360	353	355	359	337	360	361	364	379	355
9 *d*	354	318	339	361	349	347	368	363	356	352	350	349	353	353	360	363	363	365	365	363	367	380	368	368	357
10	367	365	365	366	363	376	378	375	365	356	347	346	351	357	360	361	357	367	368	373	372	370	369	370	364
11	364	366	365	368	365	368	383	379	361	357	353	345	346	350	354	358	363	369	371	372	368	368	370	369	364
12	369	369	366	367	371	376	375	376	370	365	357	341	343	352	357	364	367	371	370	362	371	375	368	369	365
13	368	365	367	368	372	374	377	374	371	363	353	348	352	354	362	360	363	361	365	371	372	368	371	370	365
14 *q*	370	372	372	372	374	377	378	378	378	371	360	354	350	352	358	364	363	369	373	375	376	376	375	372	369
15	369	371	371	372	374	377	378	377	374	366	358	354	355	357	362	363	372	372	377	378	378	372	380	363	370
16	371	374	374	376	373	381	381	380	377	363	354	354	355	359	358	369	374	373	371	369	373	374	375	375	370
17 *d*	377	375	374	379	382	384	384	386	388	381	370	366	376	375	399	352	384	411	397	379	368	357	354	352	377
18	350	350	353	345	351	357	362	357	352	336	342	345	345	351	353	363	365	367	368	373	363	364	368	363	356
19	372	361	357	358	359	363	368	367	366	356	357	359	353	349	366	371	375	370	362	370	368	367	369	367	364
20	367	364	361	364	364	374	374	371	369	358	362	360	356	364	359	367	371	372	379	371	365	367	368	369	367
21	360	354	364	368	371	367	361	362	364	362	358	355	355	349	353	366	373	371	364	366	368	369	341	321	360
22	350	357	356	376	361	366	361	363	363	359	358	359	362	353	354	364	371	370	371	362	361	367	382	372	363
23	366	364	363	357	360	371	373	368	363	362	354	351	358	364	371	369	371	376	374	366	364	368	366	371	365
24 *q*	368	370	371	372	374	375	375	373	365	357	353	350	357	363	368	368	371	373	374	375	371	371	373	371	368
25 *q*	370	371	371	371	371	375	382	375	365	357	358	359	359	362	364	370	368	369	376	377	378	379	378	376	370
26 *q*	376	375	371	373	372	373	375	375	368	363	356	353	355	362	367	367	367	371	374	375	377	375	375	372	369
27	372	373	374	374	375	379	385	382	371	364	368	368	364	354	358	370	370	375	375	372	375	378	377	375	372
28	375	372	371	371	372	375	375	375	371	361	359	357	349	349	382	365	365	368	375	378	378	379	379	378	370
29	361	358	346	364	371	371	372	377	375	368	364	357	354	346	361	377	346	364	371	368	360	368	357	365	363
30	368	369	369	372	375	377	373	359	358	347	338	343	344	349	357	357	361	362	359	364	373	371	366	375	362
31	357	340	357	365	367	371	377	371	371	363	353	345	342	343	352	359	363	368	375	375	375	375	374	371	363
Mean	363	361	362	365	366	371	373	371	365	359	355	351	*350*	353	363	372	374	379	*381*	373	367	367	364	363	365

MAGNETIC DECLINATION (WEST)
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

10 LERWICK (D) — 11° + — JANUARY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	3·3	2·9	3·2	3·5	3·7	6·3	5·1	4·6	4·8	6·0	6·4	7·4	8·5	10·3	12·1	12·9	9·0	8·2	5·6	5·4	0·8	-2·5	-5·8	-12·8	4·5
2 *d*	-2·1	0·0	2·9	1·7	5·2	7·5	6·4	6·3	5·2	4·5	5·7	7·5	8·3	9·5	9·0	11·5	16·2	13·2	13·6	13·2	0·8	4·1	0·9	-1·2	*6·2*
3 *d*	-0·1	3·8	6·4	1·8	6·5	6·5	3·0	1·3	2·3	2·8	2·8	8·7	10·4	11·4	13·6	12·7	7·1	13·1	21·1	-7·3	-1·5	-1·1	-0·6	1·0	5·2
4 *q*	1·4	1·2	2·7	1·9	1·9	1·9	1·7	1·8	1·8	2·6	3·3	3·9	4·6	4·9	4·8	4·5	4·6	3·7	3·9	3·2	3·3	3·2	3·1	3·2	*3·0*
5	3·2	3·5	3·8	3·9	4·0	4·7	4·2	4·2	2·8	3·8	4·0	5·3	6·5	7·0	7·0	8·3	8·3	9·5	6·1	-2·9	1·9	-0·6	2·2	2·9	4·3
6	3·7	4·5	4·2	4·4	4·7	5·2	6·6	5·6	5·6	7·3	7·6	7·2	7·6	9·8	8·5	8·6	12·0	11·3	6·1	6·2	3·9	2·5	2·9	1·9	6·2
7	-0·6	-0·2	3·5	4·0	4·0	4·3	4·8	5·1	9·2	8·4	7·0	8·0	9·4	8·0	10·5	10·4	12·7	9·8	8·4	5·1	1·9	-6·8	-3·4	0·4	5·2
8 *d*	-6·3	-1·9	0·9	5·7	7·0	8·4	9·4	6·2	4·2	4·2	5·4	6·6	8·0	9·3	10·4	10·5	8·5	6·5	1·8	-0·2	2·2	2·7	0·9	-5·8	4·4
9 *d*	1·7	-4·9	7·1	1·8	8·0	8·4	7·7	7·4	4·5	4·5	5·6	4·6	7·0	7·1	5·6	5·5	4·9	5·1	4·5	3·2	0·2	-0·7	0·6	1·5	4·2
10	2·5	2·8	3·9	5·0	7·0	5·1	5·5	6·3	6·9	2·2	3·8	6·0	5·6	7·5	9·8	7·1	5·2	6·0	5·1	0·3	0·8	2·8	1·9	2·3	4·6
11	1·8	0·4	3·2	1·9	5·0	7·1	5·3	4·6	4·2	8·0	5·0	5·7	7·4	8·9	7·9	4·9	6·4	5·6	5·1	4·2	-0·6	3·5	3·3	2·7	4·7
12	4·6	5·6	3·8	3·1	3·3	3·3	3·5	2·7	2·2	2·7	4·1	4·9	5·8	7·3	7·5	6·4	6·0	5·7	6·5	4·5	-0·1	-5·4	2·6	3·5	3·9
13	3·7	4·2	3·7	3·6	3·2	3·8	3·4	2·9	2·5	2·7	3·4	5·9	7·3	7·5	8·9	7·5	5·8	4·2	3·9	4·5	3·4	1·3	0·9	3·5	4·2
14 *q*	4·2	4·2	4·2	3·8	3·6	3·6	3·4	3·1	2·6	2·7	3·8	6·1	7·0	8·3	8·3	7·5	6·5	4·8	5·2	4·7	3·8	3·6	3·6	3·2	4·7
15	3·4	3·7	3·5	3·6	3·5	3·1	3·2	3·2	3·0	2·7	3·9	5·5	5·7	6·5	7·5	7·5	5·6	5·1	4·8	4·7	4·4	3·7	-3·4	-0·6	3·9
16	2·7	4·5	4·8	4·1	4·2	4·0	1·8	3·2	3·1	2·9	3·7	5·7	5·8	8·0	8·0	6·5	5·5	5·7	6·1	6·0	4·4	3·2	2·2	3·1	4·5
17 *d*	3·6	3·7	3·8	4·3	3·8	3·8	3·7	4·2	3·3	4·2	5·6	8·0	12·7	15·8	17·9	13·2	19·4	15·0	12·4	3·9	-13·4	-12·0	-2·0	0·2	5·6
18	3·5	-6·8	-4·4	-0·6	1·8	2·6	2·7	2·6	3·0	4·0	7·4	7·5	9·4	9·8	9·5	8·8	7·4	7·5	6·4	6·0	2·4	3·7	2·5	2·0	4·1
19	-0·6	-5·8	-3·9	-2·5	0·4	2·2	2·0	2·1	2·2	4·3	6·5	10·0	9·8	9·8	8·3	7·0	9·5	9·5	4·7	3·5	4·2	3·0	3·0	3·7	3·9
20	4·0	4·3	2·8	2·8	1·5	0·9	0·6	2·4	2·4	3·3	5·1	9·3	9·4	13·6	13·6	12·4	9·7	10·4	6·0	6·3	2·3	1·3	-8·1	2·2	4·9
21	-1·6	2·4	2·7	2·2	2·8	2·0	2·8	2·7	2·5	4·3	5·6	7·5	10·3	11·1	12·9	7·5	7·9	-1·4	0·8	5·3	0·4	-1·8	-1·0	-10·5	3·2
22	-5·7	-0·1	-1·1	-3·7	0·3	0·3	1·8	1·8	2·2	3·9	5·0	7·0	7·9	8·5	8·7	6·0	6·3	6·7	7·0	7·1	5·6	2·7	-2·0	-0·6	3·1
23	1·7	3·7	4·8	6·2	3·8	1·5	2·2	2·2	2·3	3·6	4·7	6·0	7·5	8·0	7·9	7·1	6·0	8·1	9·0	5·8	1·9	1·8	2·2	6·2	4·8
24 *q*	4·9	4·8	4·2	3·3	2·7	2·7	2·6	2·5	2·0	3·1	5·1	7·0	7·5	7·6	7·0	5·8	4·9	5·1	4·5	4·6	4·7	4·3	3·0	2·3	4·4
25 *q*	3·7	3·8	3·6	2·8	2·7	3·1	2·7	2·2	1·8	2·8	5·2	7·0	8·4	8·3	7·4	7·1	7·5	5·5	6·6	5·6	4·2	3·7	3·7	3·7	4·7
26 *q*	3·7	3·0	3·8	4·7	2·6	2·2	1·3	1·3	1·1	0·7	3·0	6·0	8·0	7·6	7·5	6·7	6·0	5·5	5·4	5·6	5·4	3·6	3·2	2·9	4·2
27	0·8	0·4	0·3	0·8	0·9	1·2	1·7	2·2	2·7	2·8	3·9	7·3	10·7	12·0	12·9	12·8	13·7	12·9	12·3	7·4	3·4	3·6	3·2	1·7	5·5
28	2·0	3·3	3·7	3·6	3·6	3·1	2·9	2·6	1·9	2·7	5·5	7·4	8·0	9·3	8·4	8·4	6·0	4·4	6·0	5·4	4·2	3·5	3·4	3·7	4·7
29	3·6	-5·7	-6·9	1·4	2·9	3·2	3·8	3·6	2·8	2·7	4·2	7·3	9·4	8·3	10·4	10·3	9·5	7·6	5·9	4·0	-1·4	-9·7	-3·2	1·2	3·1
30	2·6	3·7	4·9	2·8	1·3	2·5	4·2	3·8	2·2	2·4	4·3	7·5	1·3	0·0	10·8	11·6	6·6	-0·6	4·2	4·4	3·9	3·1	0·9	-1·9	3·6
31	-1·6	3·0	-2·7	1·1	2·2	3·4	2·6	2·7	1·7	0·6	1·7	4·2	7·5	9·7	10·1	7·9	7·1	5·5	5·1	4·1	3·3	2·8	2·7	2·8	3·6
Mean	1·7	1·7	2·5	2·7	3·3	3·8	3·6	3·5	3·2	3·7	4·8	6·7	7·8	8·7	*9·4*	8·5	8·1	7·1	6·6	4·3	2·0	0·9	*0·8*	0·9	4·4

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

11 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — JANUARY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	987	990	992	992	992	988	987	992	994	997	997	993	989	988	998	1018	1027	1024	1041	1060	1050	1012	992	993	1004
2 *d*	991	987	996	1003	985	954	968	986	993	999	1003	1005	1005	1001	1004	1014	1032	1121	1143	1133	1070	1030	1015	998	*1018*
3 *d*	997	998	987	932	876	865	913	966	991	1000	1002	1008	1022	1047	1138	1117	1134	954	981	1046	1060	1037	1025	1019	1005
4 *q*	1011	1005	1009	1015	1016	1016	1017	1019	1016	1019	1023	1021	1021	1018	1016	1015	1015	1014	1015	1019	1015	1010	1012	1016	1016
5	1011	1010	1010	1006	1003	1004	1003	1004	1011	1010	1013	1018	1016	1018	1033	1034	1029	1035	1030	1030	1011	1018	1017	1016	1016
6	1012	1010	1008	1003	998	1000	993	994	1005	1007	1005	1010	1011	1012	1021	1016	1018	1041	1043	1027	1019	1016	1015	1001	1012
7	955	968	974	987	993	994	996	997	1004	999	1006	1010	1016	1017	1015	1013	1018	1023	1035	1034	1047	1061	1035	1001	1008
8 *d*	956	967	986	984	948	949	972	987	998	1003	1006	1010	1022	1010	1018	1024	1028	1035	1064	1047	1023	1010	996	961	1000
9 *d*	949	925	925	963	961	955	980	993	1005	1011	1015	1022	1023	1029	1026	1018	1013	1010	1014	1016	1016	986	967	990	*992*
10	999	1001	1002	999	988	983	988	995	998	1003	1004	1005	1010	1011	1017	1035	1029	1013	1010	1008	1004	999	998	990	1004
11	951	961	983	986	980	975	975	987	995	994	998	1005	1005	1003	1011	1021	1012	1007	1005	1007	1011	1003	999	997	995
12	992	976	981	991	997	996	998	997	998	997	999	1005	1003	1001	1002	1006	1007	1008	1014	1021	1016	1003	999	1001	1000
13	1003	1002	1002	1004	1004	1003	1003	1003	1003	1003	1004	1003	1004	1005	1009	1015	1017	1025	1024	1015	1010	1010	1005	1003	1007
14 *q*	1003	1003	1004	1005	1005	1004	1003	1003	1002	1004	1004	1003	1005	1003	1005	1010	1013	1015	1010	1006	1004	1002	999	999	1005
15	999	999	1000	1002	1003	1002	1003	1003	1001	1001	1002	1002	1002	998	1003	1008	1005	1005	1004	1003	1002	1002	981	993	1001
16	991	992	994	997	998	987	993	993	994	998	1002	1000	1001	998	1005	1005	1007	1009	1010	1010	1005	1002	999	997	999
17 *d*	992	992	993	992	992	992	991	991	986	985	984	983	985	997	1078	1037	1027	1113	1121	1090	1048	981	996	1008	1015
18	995	976	974	988	1000	1004	1003	1007	1003	1003	999	1000	997	997	1002	1007	1010	1010	1010	1015	1030	1024	1013	1011	1003
19	998	1005	999	1001	1004	1007	1005	1005	1003	1002	999	998	1003	1003	999	1003	1009	1016	1036	1032	1021	1016	1013	1013	1008
20	1006	1006	1003	991	994	997	991	997	1000	1003	1004	1003	1004	1006	1023	1019	1029	1039	1047	1043	1037	1023	1005	974	1010
21	997	1007	998	997	998	997	1002	1005	1005	1005	1003	1003	1007	1009	1015	1018	1024	1041	1051	1082	1061	1016	1006	940	1012
22	971	994	995	983	990	996	1000	1005	1005	1009	1010	1009	1009	1010	1011	1010	1006	1005	1011	1036	1056	1043	1018	1016	1008
23	1012	1006	999	985	981	993	998	1003	1005	1003	1005	1010	1010	1005	1006	1010	1005	1004	1007	1019	1027	1018	1019	1013	1006
24 *q*	1013	1011	1005	1005	1005	1004	1003	1002	1001	1005	1007	1009	1009	1004	1003	1007	1007	1004	1005	1005	1010	1010	1010	1010	1006
25 *q*	1007	1005	1004	1004	1001	995	988	993	994	995	992	996	999	1004	1005	1005	1007	1011	1007	1004	1001	999	998	998	1001
26 *q*	1000	1001	1002	994	994	993	993	993	993	997	997	995	997	998	999	1001	1004	1003	1002	1001	1002	1005	1005	1003	999
27	1001	999	999	1001	999	997	991	983	982	982	983	981	986	998	1007	1010	1017	1027	1035	1039	1033	1018	1006	1005	1003
28	999	999	1004	1004	1004	1002	1004	1001	995	996	992	993	992	998	1002	1007	1019	1023	1010	1004	1005	998	995	995	1002
29	986	932	955	980	990	992	998	997	997	998	996	998	1004	1004	1003	1021	1066	1040	1027	1022	1021	999	994	992	1001
30	992	998	990	968	974	980	981	995	1004	1005	1001	1000	1006	1028	1030	1030	1040	1048	1042	1033	1015	1011	1010	990	1007
31	985	932	926	977	987	987	991	1001	1004	1004	1005	999	997	1001	1010	1016	1011	1009	1004	1003	1005	1004	1001	1000	994
Mean	992	989	990	992	989	*987*	991	997	999	1001	1002	1003	1005	1007	1017	1018	1022	1024	1028	*1029*	1024	1012	1005	998	1005

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

12 LERWICK — JANUARY

	TERRESTRIAL MAGNETIC ELEMENTS																3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force						Declination				Vertical force									
	Maximum 14,000γ +		Minimum 14,000γ +		Range		Maximum 11° +		Minimum 11° +		Range		Maximum 46,000γ +		Minimum 46,000γ +		Range					
	h. m.	γ	γ	h. m.	γ		h. m.	′	′	h. m.	′		h. m.	γ	γ	h. m.	γ						°A.
1	18 21	422	317	23 33	105		19 9	20·2	-19·4	23 15	39·6		18 18	1093	982	23 4	111		1,2,2,1,2,2,4,3	17	1	80·1
2 *d*	18 38	528	329	22 35	199		19 1	53·1	-5·9	23 13	59·0		19 17	1187	949	5 40	238		2,3,3,1,1,5,5,3	23	1	79·8
3 *d*	15 29	*887*	299	20 47	*588*		18 1	*61·2*	*-30·0*	19 45	*91·2*		16 10	*1247*	*751*	17 54	*496*		3,4,4,2,5,7,6,2	33	2	80·0
4 *q*	21 20	363	318	0 50	45		13 0	5·5	-0·7	1 9	6·2		10 10	1023	999	1 5	24		1,1,1,1,0,1,1,1	7	0	79·4
5	19 58	384	332	12 9	52		17 29	11·6	-8·9	19 38	20·5		19 30	1041	999	7 31	42		0,0,2,2,2,2,3,2	13	1	79·9
6	7 11	380	334	9 0	46		16 58	15·4	-0·6	23 59	16·0		18 13	1047	990	6 54	57		0,2,3,2,2,2,2,2	15	1	80·0
7	21 38	396	332	12 59	64		16 30	14·1	-10·0	21 59	24·1		20 55	1079	935	0 42	144		3,1,2,2,2,2,3,4	19	1	79·7
8 *d*	23 42	418	309	12 20	109		14 14	14·4	-11·5	0 32	25·9		18 17	1085	929	23 53	156		3,3,3,2,3,3,4,4	25	1	79·2
9 *d*	21 12	407	280	1 27	127		2 23	14·2	-10·1	21 10	24·3		13 47	1034	905	1 42	129		4,3,2,2,2,1,2,3	19	1	79·2
10	19 47	388	336	15 20	52		14 24	10·4	-3·8	20 7	14·2		15 21	1037	962	23 59	75		0,2,2,1,2,2,2,3	14	1	79·7
11	6 22	387	342	11 34	45		13 4	9·8	-4·4	20 32	14·2		15 14	1022	949	1 0	73		3,2,2,1,1,2,3,1	15	1	78·1
12	21 3	407	332	11 37	75		14 7	8·0	-17·6	21 0	25·6		19 26	1023	968	1 40	55		2,1,1,2,2,1,4,4	17	1	78·5
13	6 39	378	344	11 23	34		14 15	9·8	-2·3	22 5	12·1		17 49	1033	998	2 0	35		0,1,1,1,1,2,2,2	10	0	78·5
14 *q*	8 12	379	350	12 12	*29*		14 15	9·4	1·8	16 58	7·6		17 0	1023	999	22 36	24		0,0,0,1,1,2,1,0	5	0	80·0
15	22 26	416	353	11 15	63		15 22	8·0	-7·0	22 26	15·0		15 20	1009	961	22 30	48		0,0,0,1,1,1,0,3	6	0	79·5
16	5 46	387	350	10 12	37		13 55	9·5	0·7	5 54	8·8		19 0	1011	984	5 43	27		1,2,1,1,1,1,1,1	9	0	79·1
17 *d*	14 31	451	339	20 25	112		14 30	33·0	-24·8	20 53	57·8		17 30	1138	969	21 30	169		0,1,1,2,4,4,5,4	21	1	78·2
18	19 27	375	328	9 32	47		13 9	11·4	-13·7	1 50	25·1		20 40	1039	962	2 4	77		3,2,1,2,1,1,2,2	14	1	78·7
19	0 30	386	341	13 15	45		11 31	12·7	-10·2	1 29	22·9		18 56	998	988	0 36	*10*		3,2,2,2,2,2,2,3,2	18	1	79·2
20	18 52	399	350	14 30	49		13 35	15·6	-12·6	22 37	28·2		18 36	1055	960	23 13	95		1,1,1,2,2,2,3,3	15	1	79·8
21	23 13	391	*274*	23 27	117		14 11	14·6	-21·0	23 13	35·6		19 38	1094	912	22 59	182		2,2,1,1,2,4,3,4	19	1	80·0
22	22 37	394	317	0 1	77		12 35	10·6	-11·6	3 4	22·2		20 17	1066	954	0 1	112		4,3,1,2,2,1,3,3	19	1	80·0
23	17 5	379	346	3 34	33		18 45	9·8	-0·3	20 24	10·1		20 22	1029	976	4 15	53		2,2,1,1,1,1,3,1	12	0	80·0
24 *q*	22 54	380	347	11 33	33		12 51	8·7	1·0	23 18	7·7		0 13	1014	1000	8 0	14		1,0,1,1,1,0,1,1	6	0	79·6
25 *q*	6 23	384	355	9 44	*29*		12 27	9·1	1·6	6 51	7·5		17 27	1013	987	6 25	26		1,1,2,1,1,1,1,0	8	0	79·9
26 *q*	20 31	380	350	10 54	30		12 36	8·4	0·0	9 35	8·4		22 35	1008	992	3 40	16		1,1,1,1,0,0,1,2	7	0	80·1
27	7 3	396	350	13 22	46		14 0	14·9	-0·3	6 53	15·2		18 57	1042	979	8 6	63		1,1,2,1,2,1,3,1	12	0	80·1
28	21 39	381	342	12 57	39		13 40	9·8	1·3	0 1	8·5		17 8	1031	991	10 28	40		1,0,1,1,1,2,1,0	7	0	80·0
29	21 27	393	335	2 20	58		14 8	12·0	-17·0	2 0	29·0		16 22	1081	912	1 39	169		4,2,1,2,2,3,4,3	21	1	80·0
30	23 41	387	330	10 52	57		15 0	14·0	-9·6	17 43	23·6		17 39	1064	963	3 12	101		2,2,2,2,2,4,2,2	18	1	79·5
31	6 32	379	326	1 27	53		1 28	13·6	-7·4	2 12	21·0		15 13	1018	873	1 55	145		4,2,1,2,2,2,1,1	15	1	79·0
Mean	- -	412	332	- -	80		- -	15·2	-8·2	- -	23·5		- -	1054	957	- -	97		-	-	0·68	79·5

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

13 LERWICK (H) — 14,000γ (0·14 C.G.S. unit) + — FEBRUARY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *q*	372	363	370	373	377	378	379	376	369	360	357	353	352	359	367	372	375	378	379	381	382	383	379	380	371
2	381	380	378	378	388	388	381	378	366	356	345	336	330	343	360	374	387	356	365	364	353	351	363	366	365
3 *d*	367	369	380	381	384	387	392	375	337	327	335	336	342	376	334	342	353	362	365	363	368	376	377	370	362
4	364	363	368	364	368	370	366	350	360	356	345	339	332	341	341	357	352	356	369	366	359	355	357	350	356
5	365	358	342	353	366	372	372	368	361	354	345	333	336	344	347	356	354	355	359	353	351	360	361	373	356
6	367	368	368	368	369	369	371	370	361	354	341	340	332	345	347	362	356	371	373	372	371	365	372	358	361
7	356	365	368	370	367	372	372	366	364	360	353	348	336	342	352	348	363	364	367	375	373	369	369	366	362
8	380	365	354	362	365	368	369	369	367	367	361	353	346	349	351	356	360	368	371	373	375	372	363	353	363
9 *q*	370	369	372	367	368	371	373	373	368	362	357	354	350	353	358	360	365	368	366	374	377	376	376	377	367
10	376	377	382	384	387	390	383	392	377	371	364	361	351	357	368	376	363	365	371	373	376	377	377	376	*374*
11	376	380	380	370	369	374	377	374	369	362	359	353	352	359	368	364	354	365	368	368	364	359	371	375	367
12	376	375	375	374	377	378	380	378	373	365	356	357	357	345	361	356	364	366	368	370	373	373	372	371	368
13	355	352	374	374	379	384	385	380	368	353	346	338	353	361	354	363	373	362	372	376	377	375	358	352	365
14	367	375	372	374	377	381	381	380	376	356	343	337	338	339	356	372	373	372	370	372	363	362	351	349	364
15 *d*	349	350	345	355	358	381	384	380	371	350	339	332	325	332	350	385	386	370	408	463	384	324	344	240	359
16 *d*	190	312	323	344	317	340	368	348	333	342	313	320	332	354	357	369	368	381	373	372	372	367	352	350	*342*
17	320	343	343	320	325	369	367	360	352	337	318	329	332	352	351	364	360	363	368	368	373	375	372	364	351
18 *d*	372	337	345	364	368	377	363	359	365	341	334	349	349	360	363	345	367	368	383	404	371	361	360	358	361
19	352	367	358	343	350	366	373	365	348	337	340	336	347	342	352	355	363	364	371	375	389	372	369	363	358
20 *q*	367	367	363	367	371	368	370	367	361	356	351	348	345	350	360	367	374	376	377	374	374	374	374	374	366
21 *q*	374	374	372	372	372	374	373	369	361	350	343	340	343	351	360	364	369	374	375	378	377	377	376	380	367
22 *q*	380	374	362	371	369	376	376	373	361	350	339	337	341	350	352	356	362	371	374	377	380	381	380	377	365
23 *d*	377	377	368	361	373	382	391	387	379	358	343	340	359	387	420	428	400	407	362	350	347	359	357	356	*374*
24	361	363	364	366	368	369	372	370	354	349	349	345	341	345	354	350	355	376	376	386	401	357	360	362	362
25	360	359	360	363	363	367	372	370	363	348	338	338	340	344	352	356	359	370	368	371	367	365	370	371	360
26	372	371	372	373	374	377	377	376	371	359	347	344	341	347	355	364	367	368	374	382	384	381	381	381	368
27	377	353	366	368	374	373	381	378	372	360	350	346	351	370	368	362	368	373	381	382	384	381	355	326	367
28	292	290	343	345	345	348	374	378	356	344	333	328	337	347	359	363	377	366	374	377	379	379	377	365	353
29	301	363	372	368	359	360	372	364	356	348	338	334	346	349	375	369	394	374	372	366	371	372	373	371	361
Mean	356	361	363	365	366	373	376	371	363	353	344	*341*	343	351	358	364	368	369	372	*376*	373	368	367	361	363

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

14 LERWICK (D) — 11° + — FEBRUARY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 *q*	6·0	1·7	0·8	2·2	2·5	2·8	3·0	2·7	2·0	2·1	3·6	5·1	6·6	7·8	9·4	7·7	6·5	5·5	5·1	5·0	4·2	4·1	3·9	4·0	4·3
2	4·1	4·0	4·2	5·3	1·6	1·6	8·0	7·5	5·8	5·6	7·0	8·9	11·2	13·6	13·3	13·1	12·7	13·9	5·6	4·6	0·4	-2·5	0·3	1·9	*6·3*
3 *d*	2·0	3·7	4·2	1·5	2·7	1·8	2·9	3·2	3·0	6·2	8·5	10·3	10·8	8·0	8·0	7·0	6·5	5·9	5·1	4·1	3·9	4·0	4·0	3·3	5·0
4	2·6	3·7	4·9	5·1	5·6	3·3	2·6	6·4	4·2	3·8	4·2	6·4	8·4	8·9	9·4	10·4	6·7	4·5	5·9	5·4	3·5	-0·8	1·4	-0·7	4·8
5	2·2	1·8	6·0	7·6	0·7	1·7	1·8	1·9	2·0	2·5	4·2	5·4	9·7	11·5	12·0	9·8	1·3	7·5	5·5	0·4	-4·4	2·2	0·0	0·7	3·9
6	2·9	4·7	5·3	4·2	3·6	3·5	2·8	2·8	4·9	4·5	6·0	7·5	9·4	9·5	10·1	9·2	5·8	5·5	5·9	5·3	4·7	1·5	-10·8	-13·0	4·0
7	-0·3	2·2	4·2	4·0	5·4	6·8	4·9	2·7	0·8	0·3	1·8	5·3	8·1	8·4	9·4	5·6	7·5	7·4	5·5	1·7	1·5	3·9	1·6	-4·5	3·9
8	-6·9	-1·6	2·7	2·4	1·9	3·6	3·7	3·6	2·2	1·8	3·7	6·3	8·3	9·8	7·4	5·9	4·8	4·8	5·6	4·8	4·5	2·6	-8·6	-1·1	3·0
9 *q*	2·7	-0·6	2·5	2·2	2·2	3·2	3·2	2·8	2·4	2·4	4·1	5·5	6·4	7·8	8·2	6·5	5·5	5·1	4·2	3·2	3·7	3·9	3·7	3·5	3·9
10	3·6	3·7	4·2	3·9	4·1	3·7	6·5	7·5	2·2	0·8	1·9	4·9	5·2	7·0	8·0	9·0	8·4	7·5	6·2	4·9	3·7	3·4	3·2	2·7	4·8
11	2·2	4·0	0·7	0·5	1·8	2·2	2·6	1·9	1·1	1·2	2·6	4·5	6·5	8·0	7·5	7·4	7·6	6·6	5·2	4·2	0·9	-1·6	1·8	3·0	3·4
12	3·2	3·2	3·5	3·6	3·6	3·7	3·7	2·8	1·7	1·4	2·2	6·2	7·4	8·0	8·4	6·7	5·6	5·2	4·5	4·2	2·8	0·9	-1·6	-2·0	3·7
13	-7·6	-1·6	5·0	3·8	3·3	2·7	2·7	1·9	1·0	0·9	2·8	6·0	9·4	10·3	7·6	6·0	8·0	7·5	5·7	5·2	4·6	3·8	-2·8	1·5	3·7
14	0·7	3·6	3·7	3·8	3·8	3·0	2·9	2·7	1·8	1·4	3·9	7·6	9·8	10·9	10·4	13·5	14·8	13·5	7·0	2·7	-0·4	-1·6	-6·3	-5·6	4·5
15 *d*	-1·1	-3·0	-0·4	5·7	8·9	8·4	8·1	2·1	4·2	4·6	5·8	7·8	11·3	12·0	10·3	14·6	12·7	10·4	14·0	13·9	2·7	-7·2	-11·6	-5·8	5·3
16 *d*	-2·5	-10·6	-2·8	1·3	5·5	4·6	5·1	7·0	5·1	4·6	6·8	6·0	7·7	7·6	7·7	9·2	-2·1	3·8	8·0	5·7	-0·1	-6·8	-2·5	-4·9	2·6
17	-5·7	-2·9	-3·3	-1·0	-2·1	-1·6	-0·5	1·7	2·2	3·7	5·7	8·8	8·7	10·2	10·3	7·8	4·2	3·6	5·8	5·7	0·4	1·0	-1·1	0·7	2·6
18 *d*	1·3	1·8	-3·7	-1·0	2·0	-0·8	6·3	8·0	4·7	5·1	2·7	4·2	6·4	10·3	11·2	2·6	5·3	4·7	-1·6	-3·9	1·1	0·4	-2·2	-2·0	2·6
19	3·7	1·6	2·7	5·3	5·6	0·4	0·0	1·4	0·8	2·7	4·6	5·5	8·3	8·3	10·7	8·4	6·0	4·5	4·6	5·1	1·4	2·5	-9·7	1·0	3·6
20 *q*	1·5	2·2	1·8	2·2	2·2	0·4	0·0	0·7	0·7	1·3	4·4	6·9	7·8	8·1	7·5	6·4	3·3	2·6	4·7	4·9	4·2	4·0	3·4	2·9	3·5
21 *q*	3·2	3·3	3·2	3·2	2·8	2·5	2·0	1·0	0·0	0·8	2·7	5·1	6·7	8·0	7·0	5·6	5·1	5·1	5·1	5·8	5·0	4·0	3·2	2·7	3·9
22 *q*	-2·0	-5·8	-3·8	-3·4	-0·8	0·1	0·0	-0·1	-0·1	1·1	3·7	7·8	9·8	10·4	9·7	7·0	5·0	4·3	3·9	3·6	3·4	3·5	3·5	3·6	2·7
23 *d*	4·6	4·9	4·1	0·4	-3·1	-0·6	-2·3	-2·4	-1·1	0·4	4·2	7·0	11·8	12·2	15·9	19·9	8·4	1·4	1·9	3·2	-1·2	-0·3	-0·6	2·2	3·8
24	3·3	3·2	2·1	2·6	2·8	2·2	1·5	0·4	1·6	2·8	4·2	7·0	7·6	8·9	8·4	6·6	5·3	6·0	6·8	6·0	-1·6	-7·4	1·7	3·1	3·5
25	2·7	2·7	2·7	2·7	2·5	1·8	1·4	0·5	0·1	1·3	1·7	3·8	6·7	6·5	5·5	4·6	4·6	4·5	4·6	3·5	2·8	2·5	2·4	2·2	3·1
26	2·4	3·2	2·9	2·7	2·7	2·2	1·8	0·8	0·0	0·0	1·3	4·8	5·6	7·4	6·5	5·5	5·0	5·4	5·1	5·1	5·1	4·2	1·8	2·2	3·5
27	2·2	-4·3	-5·0	-4·4	-1·1	1·4	1·3	0·8	0·3	1·5	5·9	9·6	10·2	12·7	11·3	10·2	7·6	6·7	7·0	6·5	6·3	5·1	2·6	-3·8	3·8
28	-7·2	-7·2	-6·9	-10·6	-2·9	-0·6	1·5	2·2	0·4	-0·1	1·8	4·0	8·0	11·3	11·8	9·1	8·8	9·3	7·0	4·8	4·2	3·1	1·8	-0·7	2·2
29	9·3	3·8	0·2	1·7	3·2	3·2	-1·0	0·6	0·4	1·4	3·5	6·3	10·5	12·2	14·4	13·4	15·0	7·3	4·7	4·2	3·6	2·7	-0·1	-6·8	4·7
Mean	1·1	0·9	1·6	2·0	2·5	2·3	2·6	2·6	1·9	2·3	4·0	6·4	8·4	9·5	*9·6*	8·6	6·8	6·2	5·5	4·5	2·4	1·2	*-0·6*	-0·3	3·8

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

15 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — FEBRUARY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	M
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	
1 *q*	986	943	982	993	993	993	998	999	999	1003	999	997	998	997	993	997	999	998	998	1001	1001	997	998	998	
2	995	993	994	993	980	974	973	972	985	986	994	1003	1010	1015	1024	1032	1053	1087	1048	1030	1035	1033	1016	1010	1
3 *d*	1003	1001	998	999	993	989	985	997	1011	1016	1022	1023	1029	1087	1036	1018	1013	1006	1005	1007	1008	1005	1005	1004	1
4	1005	1005	998	999	998	998	999	999	997	1001	1002	1003	1010	1010	1015	1018	1035	1037	1012	1016	1031	1023	997	979	1
5	973	978	974	951	971	987	993	999	1001	1002	1002	1009	1004	1004	1011	1027	1051	1038	1028	1032	1035	1011	1009	987	1
6	989	993	999	1001	999	999	1003	1000	999	1002	1004	1005	1013	1022	1023	1021	1016	1011	1004	1001	1004	1010	1003	980	1
7	996	997	992	996	997	987	988	999	1000	999	1003	1007	1011	1014	1017	1027	1018	1018	1014	1003	1002	1002	999	993	1
8	979	976	968	967	985	992	994	998	996	993	992	993	992	996	1006	1013	1010	1006	1002	1000	999	1002	992	990	
9 *q*	961	980	986	993	998	999	998	999	1000	1001	1000	998	997	997	998	1005	1003	1002	1003	1003	997	997	998	998	
10	997	998	998	997	993	992	993	977	987	993	993	990	993	993	997	1006	1020	1014	1004	1003	997	992	992	992	
11	997	986	971	986	992	996	993	992	992	997	997	993	992	997	1010	1023	1017	1009	1005	1004	1009	1016	1003	996	
12	993	993	993	994	993	993	992	991	992	993	993	991	992	1003	1004	1004	1002	1006	1005	1005	1002	998	990	974	
13	946	950	955	983	992	993	993	993	994	994	994	996	991	992	999	1006	1008	1016	1012	1003	999	997	1001	979	
14	967	977	991	993	997	998	997	995	997	1000	1004	1003	1002	1010	1019	1027	1046	1083	1090	1090	1063	1041	1004	981	1
15 *d*	971	954	962	965	949	960	981	991	991	988	992	993	999	1018	1029	1037	1065	1059	1052	1109	1082	1016	998	922	1
16 *d*	861	874	907	937	945	938	961	973	983	1005	1018	1016	1017	1016	1013	1026	1060	1047	1041	1027	1033	1010	985	968	
17	955	936	947	940	941	956	979	993	1001	1003	1010	1013	1016	1028	1030	1029	1041	1041	1025	1023	1016	1002	993	1001	
18 *d*	997	956	932	968	988	987	974	968	977	992	1002	1001	1000	1003	1023	1053	1036	1023	1019	992	988	998	987	961	
19	971	981	998	987	973	988	992	995	1001	1001	1003	1004	1003	1005	1016	1019	1025	1021	1011	1005	1001	971	964	977	
20 *q*	987	992	996	988	987	992	993	994	1001	1004	1004	1003	1003	1003	1005	1004	1005	1005	999	1003	1003	999	999	998	
21 *q*	997	997	997	997	997	998	997	999	1003	1004	1004	1004	1001	1001	1000	999	998	1001	998	996	996	997	998	997	
22 *q*	990	980	980	977	985	990	992	993	998	1002	1002	997	999	1004	1010	1010	1005	1003	998	997	995	994	994	995	
23 *d*	990	979	958	950	959	960	961	971	973	982	985	996	1028	1065	1079	1139	1164	1162	1087	1046	1027	1005	980	992	
24	997	998	998	1000	1000	1000	999	998	1003	998	998	999	1003	1009	1014	1012	1004	1008	1025	1053	1077	1030	1003	1004	
25	1005	1004	1005	1006	1005	1004	1001	1002	1002	1002	1004	1003	1001	1001	1001	1008	1007	1004	1003	1001	1003	1004	998	997	
26	996	1000	1002	1002	1002	1001	1000	999	1000	999	998	994	997	997	1002	1003	1004	1003	1001	996	994	996	996	990	
27	986	953	953	961	979	987	991	993	996	994	993	990	987	991	1002	1009	1012	1008	1003	1004	1002	1009	1016	937	
28	926	956	918	937	965	972	978	980	990	996	1002	1003	1003	1000	1006	1021	1023	1020	1017	1009	1005	1002	1004	1000	
29	915	936	973	985	984	960	974	986	992	995	994	991	991	998	1008	1017	1028	1057	1042	1037	1017	1006	995	972	
Mean	977	*975*	977	981	984	986	989	991	995	998	1000	1001	1003	1009	1013	1021	*1027*	*1027*	1019	1017	1015	1006	997	985	1

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

16 LERWICK — FEBRUARY

	TERRESTRIAL MAGNETIC ELEMENTS																3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet hours 200 +
	Horizontal force				Declination				Vertical force											
	Maximum 14,000γ +			Minimum 14,000γ +		Range	Maximum 11° +		Minimum 11° +		Range		Maximum 46,000γ +			Minimum 46,000γ +			Range					
	h. m.	γ		γ	h. m.	γ	h. m.	′	′	h. m.	′		h. m.	γ		γ	h. m.		γ						°A.
1 *q*	21 37	385		349	12 20	*36*	0 38	13·2	-0·7	1 32	13·9		9 37	1003		925	1 10		78	3,0,1,0,1,1,0,0	6	0	80·0	
2	16 46	408		324	12 13	84	16 52	18·9	-3·8	20 53	22·7		17 33	1099		965	6 58		134	0,2,2,2,2,3,3,2	16	1	79·8	
3 *d*	13 8	417		315	11 42	102	13 36	15·9	-2·8	13 13	18·7		13 21	1124		983	6 34		141	2,2,3,3,4,2,2,2	20	1	79·4	
4	6 6	375		323	12 18	52	12 52	12·4	-3·2	23 51	15·6		17 10	1051		973	23 41		78	1,1,2,2,2,3,2,3	16	1	79·0	
5	23 4	388		328	11 58	60	3 8	14·9	-9·5	20 9	24·4		16 32	1061		943	3 19		118	3,3,2,2,2,3,3,2	20	1	79·0	
6	22 49	396		319	12 10	77	12 59	12·2	*-22·3*	22 47	34·5		13 50	1023		971	23 10		52	1,0,2,2,2,2,1,4	14	1	80·0	
7	20 24	384		330	12 37	54	14 34	11·6	-13·3	23 59	24·9		15 21	1032		982	5 57		50	3,1,2,2,2,2,2,3	17	1	79·3	
8	22 12	391		342	12 16	49	13 22	11·2	-14·5	22 54	25·7		15 20	1011		955	3 10		56	3,2,1,2,2,1,0,3	14	1	79·0	
9 *q*	0 32	387		349	12 29	38	14 25	9·1	-2·0	1 5	11·1		18 46	1008		951	0 40		57	3,1,0,1,1,1,2,0	9	0	80·0	
10	7 17	403		349	12 7	54	6 57	11·8	0·4	8 53	11·4		16 44	1027		969	7 23		58	1,1,3,2,2,2,1,0	12	1	79·4	
11	2 2	392		348	11 58	44	1 35	9·0	-3·1	21 26	12·1		16 7	1025		962	2 4		63	3,2,1,1,2,2,2,2	15	1	78·6	
12	6 31	385		331	13 40	54	12 35	10·8	-5·6	23 59	16·4		17 47	1009		943	23 59		66	0,0,1,2,2,1,1,3	10	0	77·7	
13	5 32	389		331	11 5	58	13 25	13·0	-10·2	1 11	23·2		17 40	1021		932	0 9		89	3,1,2,2,2,2,2,3	17	1	-	
14	5 55	385		325	11 53	60	17 2	16·1	-8·8	23 17	24·9		19 7	1101		958	0 1		143	2,1,1,2,2,3,3,4	18	1	77·7	
15 *d*	19 14	*552*		*59*	23 46	*493*	19 37	*30·9*	-20·3	22 19	*51·2*		19 43	1148		825	23 47		*323*	2,3,2,2,3,3,5,6	26	2	77·9	
16 *d*	16 48	390		77	0 15	313	15 41	11·6	-16·8	0 43	28·4		16 59	1071		*810*	0 10		261	6,3,3,3,2,4,4,3	28	1	77·8	
17	21 48	388		291	4 3	97	13 4	12·7	-13·6	0 1	26·3		16 54	1051		918	1 5		133	3,4,2,2,2,2,3,2	20	1	77·6	
18 *d*	19 47	426		314	1 44	112	13 27	12·9	-10·8	18 15	23·7		15 43	1061		912	2 0		149	4,2,3,3,2,3,3,3	23	1	77·2	
19	20 50	412		330	3 52	82	14 18	12·9	-14·8	22 0	27·7		16 37	1030		952	21 50		78	2,3,2,2,2,2,3,4	20	1	77·0	
20 *q*	16 27	380		338	12 35	42	12 4	9·1	-0·5	6 5	9·6		17 8	1010		985	0 1		25	1,1,1,2,1,1,1,0	8	0	77·7	
21 *q*	23 52	382		338	11 10	44	12 58	8·3	-0·5	9 11	*8·8*		9 46	1005		993	23 59		*12*	0,0,1,1,1,1,0,1	5	0	77·1	
22 *q*	1 14	384		335	10 47	49	13 35	11·2	-7·9	1 11	19·1		14 53	1011		973	3 26		38	2,2,2,1,1,1,1,0	10	0	77·5	
23 *d*	17 12	472		309	11 16	163	15 32	25·2	-5·0	4 1	30·2		17 10	*1199*		948	3 15		251	3,2,2,3,4,4,4,3	25	1	77·0	
24	20 16	463		334	13 0	129	20 8	12·0	-19·0	21 12	31·0		20 12	1096		993	2 45		103	2,1,2,1,1,2,4,4	17	1	77·0	
25	23 55	380		334	11 33	46	12 44	8·6	-1·7	8 13	10·3		15 47	1010		991	23 59		19	0,1,1,2,1,2,1,2	10	0	-	
26	19 41	398		338	12 21	60	13 38	9·1	-0·2	8 55	9·3		16 42	1007		986	23 34		21	0,0,0,2,1,1,2,1	7	0	77·1	
27	20 15	396		308	23 38	88	13 47	14·1	-11·2	3 0	25·3		22 20	1047		922	23 59		125	3,3,1,2,2,2,2,4	19	1	77·0	
28	6 52	387		244	1 0	143	13 44	14·2	-12·8	3 12	27·0		15 56	1028		903	2 56		125	4,3,2,2,2,2,1,2	18	1	77·0	
29	16 25	407		229	0 23	178	0 17	19·0	-9·0	23 22	28·0		17 19	1064		874	0 31		190	5,3,2,2,3,3,3,3	24	1	77·0	
Mean	- -	404		305	- -	99	- -	13·5	-8·4	- -	21·9		- -	1049		945	- -		104	-	-	0·76	78·2	

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

17 LERWICK (H) — 14,000γ (0·14 C.G.S. unit) + — MARCH

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *d*	353	294	271	266	268	327	331	391	359	338	337	333	308	330	352	359	365	371	372	377	378	350	302	300	335
2 *d*	295	333	356	360	360	341	361	368	361	355	333	323	331	354	364	356	365	363	381	377	377	378	305	311	350
3	326	368	369	374	368	359	368	377	365	330	305	316	326	358	362	373	368	366	372	374	375	376	386	365	359
4	365	374	370	368	366	370	377	381	378	357	356	350	348	349	351	361	367	377	378	380	380	380	379	385	369
5	381	376	377	380	382	384	385	386	378	362	356	344	348	346	352	361	380	373	387	381	384	382	380	381	*373*
6	380	380	381	380	381	382	383	382	371	357	344	352	341	347	363	385	363	386	380	378	381	373	370	378	372
7	367	372	372	371	371	378	376	374	371	362	348	346	351	362	369	367	376	369	372	378	379	380	380	381	370
8	381	379	378	378	380	381	377	376	370	358	344	341	353	344	364	371	380	378	363	369	367	358	367	374	368
9	377	375	374	374	376	378	380	382	363	352	344	343	349	356	367	375	365	366	373	378	397	377	375	378	370
10	375	372	375	377	378	381	379	372	359	343	331	333	351	358	372	376	382	367	377	377	387	376	374	375	369
11	375	374	373	373	377	378	379	376	366	351	340	337	336	352	371	375	371	375	378	381	384	391	388	349	369
12	355	363	355	350	364	386	366	359	374	360	343	330	342	339	344	345	352	374	377	382	382	375	372	376	361
13 *d*	337	334	349	353	361	371	371	361	349	334	300	316	381	397	429	408	418	465	398	370	362	186	258	322	351
14 *d*	266	299	280	259	248	302	343	353	354	345	348	340	343	371	385	413	435	426	420	416	357	351	350	346	348
15 *d*	270	107	152	127	59	−41	−166	365	378	114	237	299	375	569	474	552	806	757	511	289	346	294	282	235	*308*
16	289	321	326	326	321	318	316	316	316	321	309	305	305	311	320	331	339	341	352	363	367	356	360	352	328
17	350	333	339	336	348	355	354	344	332	312	289	297	314	323	331	350	370	357	366	364	364	363	359	355	342
18 *q*	350	334	339	342	360	365	367	357	350	343	336	330	340	340	343	364	367	367	373	373	375	370	367	366	355
19	363	361	356	362	362	372	369	345	338	339	339	328	331	337	345	357	366	375	368	374	374	372	372	370	357
20	371	370	370	370	370	371	374	374	365	355	349	346	344	346	362	362	380	359	370	379	381	373	380	370	366
21	366	371	361	365	365	364	360	362	367	359	340	335	341	352	352	371	370	375	386	386	380	382	374	371	365
22	379	373	373	370	370	372	370	368	358	351	348	345	337	343	358	359	374	376	376	384	398	379	375	377	367
23 *q*	372	371	365	372	374	378	378	374	366	355	345	334	340	347	357	366	370	376	377	382	388	384	385	381	368
24 *q*	381	383	380	380	378	378	380	374	363	353	344	341	347	349	357	357	363	370	378	381	383	384	384	383	370
25 *q*	381	381	379	378	379	381	382	378	368	349	334	329	336	344	358	371	378	381	386	387	392	389	387	385	371
26	385	382	380	380	380	381	381	375	363	352	345	334	335	364	388	367	350	372	384	391	391	372	339	345	368
27	341	359	370	372	378	374	355	366	358	340	328	317	334	354	373	396	376	368	374	379	380	381	373	372	363
28	370	366	367	373	376	378	376	371	356	345	339	337	336	352	369	379	373	371	376	378	376	376	375	374	366
29 *q*	373	371	367	370	373	372	373	369	357	347	338	338	341	346	359	364	361	373	389	384	380	378	367	369	365
30	370	371	376	374	380	376	378	364	356	342	332	324	340	350	364	365	360	374	387	384	388	357	364	379	365
31	376	376	362	363	371	382	386	374	360	347	336	335	340	352	370	375	380	383	390	393	390	389	397	395	372
Mean	355	352	353	352	352	355	352	368	360	340	333	*332*	340	356	365	375	386	*388*	383	377	379	366	362	358	360

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

18 LERWICK (D) — 11° + — MARCH

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 *d*	−9·0	−3·4	−4·9	−5·0	−1·1	0·4	9·0	8·1	8·8	6·2	6·7	8·4	8·8	11·6	11·6	4·5	4·6	5·5	3·9	−4·6	−3·4	−4·9	−11·0	−2·3	2·0
2 *d*	−1·3	1·8	1·1	0·2	2·2	5·6	3·6	2·9	0·8	1·7	2·4	2·2	5·6	8·2	8·3	6·0	3·4	1·9	3·2	0·0	−9·7	−0·2	1·3	0·9	2·2
3	−6·5	0·4	0·8	1·7	10·2	9·4	5·6	1·8	1·6	2·2	3·7	6·3	8·6	7·6	8·3	6·0	5·0	0·3	4·2	4·2	3·8	2·9	−0·9	2·5	3·7
4	5·4	1·3	0·7	0·1	2·2	0·4	1·5	1·8	2·7	1·3	1·8	4·0	7·5	8·5	7·7	7·2	5·5	4·5	4·2	4·1	3·8	3·4	1·8	1·3	3·4
5	1·3	3·1	3·2	1·8	1·9	2·0	2·1	1·8	1·0	1·8	2·9	6·0	8·9	9·3	8·4	6·0	2·5	1·6	−1·1	−0·6	−1·1	−0·6	3·2	3·8	2·9
6	2·8	2·8	2·7	2·5	1·8	1·4	2·5	1·8	1·8	2·7	4·6	7·2	8·9	9·5	10·0	10·1	3·7	−6·9	2·5	3·5	−2·5	1·1	1·3	5·1	3·4
7	−1·1	1·9	2·2	1·8	3·6	2·6	2·0	1·8	1·2	1·8	4·4	8·0	9·8	11·2	10·4	7·6	2·2	3·8	3·8	3·5	3·8	3·9	3·7	3·2	4·0
8	2·6	2·2	2·0	1·9	1·8	1·7	2·2	1·2	0·3	0·9	2·9	6·5	11·8	11·3	11·8	8·2	10·7	8·0	2·5	3·2	1·9	−3·4	1·5	2·6	4·0
9	3·3	3·2	2·5	2·3	2·1	1·8	1·2	1·0	1·8	4·5	7·0	9·4	10·8	10·3	9·4	6·9	3·5	1·3	2·6	2·7	−1·7	2·2	3·3	2·1	3·9
10	0·8	3·0	2·5	1·6	1·9	1·3	0·1	−0·9	−1·6	−1·1	2·1	7·4	11·2	11·3	10·1	6·5	6·7	3·9	−1·8	−4·0	−3·4	−2·7	1·3	3·5	2·5
11	2·8	2·4	0·8	0·8	1·2	1·1	0·7	−0·1	−1·4	−0·6	1·9	6·4	10·3	11·3	10·5	8·0	5·6	5·1	4·9	4·5	4·2	−0·3	−13·6	−9·6	2·4
12	−13·0	−0·1	1·3	3·7	−7·0	−2·5	4·5	5·8	−0·1	0·7	2·2	6·6	12·8	12·8	13·7	13·4	9·8	7·2	6·6	5·8	4·7	4·4	3·9	6·0	*4·3*
13 *d*	4·2	−4·4	−11·5	−15·3	−3·9	−1·3	−1·4	−2·0	0·5	3·8	2·8	8·2	14·3	21·5	14·7	12·8	9·1	5·6	−1·8	2·3	−1·6	11·8	1·1	−0·6	2·9
14 *d*	−1·6	−7·2	−8·7	4·6	4·0	9·9	2·2	−1·6	−5·5	−2·1	0·7	2·9	9·4	10·4	11·4	9·4	3·7	3·7	0·2	6·0	2·7	−3·0	−8·7	−2·3	1·7
15 *d*	−18·6	−7·8	−26·5	−7·9	22·2	10·3	7·2	−10·7	0·4	−5·6	−9·5	0·9	10·7	6·5	8·5	19·3	23·2	14·0	12·1	10·7	0·1	1·9	−0·7	−6·9	2·2
16	−10·8	−4·0	−6·9	−4·0	−4·0	−4·0	−1·3	−4·3	−5·6	−2·0	−0·6	2·7	6·5	8·4	8·3	6·7	5·2	3·1	1·6	2·5	0·1	−0·9	1·9	1·6	*0·0*
17	0·9	−1·1	−0·3	−0·2	−3·1	−3·9	−3·4	−3·1	−2·5	−0·6	3·2	7·5	8·4	7·5	7·5	6·3	4·6	0·2	2·6	3·1	2·6	2·6	2·2	−0·1	1·7
18 *q*	−2·1	−2·0	0·0	1·3	−1·1	−0·6	−1·2	−1·6	−2·5	−2·0	0·4	3·6	8·0	8·4	8·3	7·8	5·3	2·8	2·7	4·2	3·7	1·1	0·4	2·2	2·0
19	1·5	−0·6	−3·2	−2·5	−1·2	−0·1	0·8	2·2	4·2	2·2	2·5	4·5	2·6	9·4	8·4	6·5	4·8	3·8	3·0	2·2	3·2	2·6	3·2	2·2	2·6
20	2·2	1·6	1·6	1·3	1·7	0·9	0·4	−1·9	−1·2	−0·1	2·8	7·4	11·8	12·6	11·2	9·1	7·3	4·6	4·2	3·9	2·2	−3·6	2·1	1·8	3·5
21	5·1	2·1	3·1	1·9	0·6	0·4	1·6	−0·2	−4·1	0·8	3·4	6·8	10·4	12·7	11·3	9·5	7·2	5·8	5·8	4·7	1·5	1·0	0·8	2·2	3·9
22	2·7	1·0	1·9	1·6	2·2	0·6	−0·7	−1·1	−3·2	−1·8	0·4	5·2	8·2	8·6	8·9	7·7	3·0	4·1	4·6	1·0	−2·8	−0·9	2·1	3·0	2·3
23 *q*	6·0	4·9	4·5	3·2	0·9	0·8	0·4	−1·6	−2·9	−1·4	0·8	3·8	8·4	9·9	9·4	7·9	6·0	5·1	5·1	4·5	4·2	3·7	3·2	2·4	3·7
24 *q*	2·5	2·2	1·7	1·0	0·5	1·3	0·8	−0·7	−2·4	−1·3	0·4	3·6	8·3	9·5	9·4	7·7	6·8	6·0	5·1	3·8	3·6	3·5	3·1	3·1	3·3
25 *q*	2·8	3·1	2·4	2·2	1·7	0·8	0·4	−1·2	−2·1	−1·6	0·9	4·2	8·3	10·5	11·2	10·4	8·9	7·4	6·3	5·2	4·7	3·8	2·8	2·7	4·0
26	2·3	1·8	2·2	2·2	2·2	1·8	0·5	−1·6	−3·0	−1·9	1·4	5·0	9·4	14·1	16·0	13·0	6·7	6·5	6·1	4·2	6·0	−7·7	−3·1	−3·2	3·4
27	5·5	−1·7	−0·6	−0·2	−1·8	−0·1	1·3	−1·2	−2·3	−0·2	2·7	5·9	9·8	11·5	11·0	9·5	6·4	5·0	4·2	4·0	2·9	3·1	2·7	4·1	3·4
28	−0·2	−3·4	−2·0	0·3	0·4	0·2	−1·9	−4·2	−4·0	−0·9	3·7	8·4	11·3	12·7	12·1	9·4	6·4	3·5	2·8	3·1	3·1	2·6	1·9	0·9	2·8
29 *q*	−2·1	−2·0	−0·4	0·4	0·0	−0·2	−1·1	−3·8	−4·6	−3·4	−1·0	3·8	8·2	10·0	10·3	9·4	7·3	5·6	4·6	0·8	1·7	2·0	−4·6	−2·9	1·6
30	−0·9	−2·5	−4·6	−3·2	−3·0	−3·2	−3·7	−4·4	−4·0	−2·5	1·8	7·5	10·4	11·2	11·8	9·9	7·0	6·3	5·6	4·8	0·8	−3·9	0·2	1·3	1·8
31	2·2	−0·1	−6·3	−5·9	−1·2	−1·6	−3·1	−4·6	−4·9	−2·5	1·3	5·7	8·4	10·4	11·2	10·0	9·3	7·5	6·3	4·9	2·8	3·0	2·2	1·4	2·3
Mean	−0·3	−0·1	*−1·3*	−0·2	1·2	1·2	1·1	−0·7	−1·1	0·0	2·0	5·7	9·3	*10·6*	10·4	8·8	6·5	4·4	3·8	3·2	1·3	0·9	0·3	1·0	2·8

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

19 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — MARCH

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *d*	930	899	860	901	923	902	919	940	971	994	1002	1015	1032	1022	1034	1060	1043	1034	1028	1040	1020	930	822	896	967
2 *d*	857	918	960	986	991	976	980	991	1001	1007	1019	1043	1042	1020	1018	1018	1022	1022	1022	1034	1024	980	933	856	988
3	909	964	988	991	956	928	937	973	991	1015	1038	1041	1035	1034	1023	1030	1034	1036	1017	1007	1003	1003	991	987	997
4	960	983	996	998	996	990	992	996	997	1006	1005	1003	1002	1004	1008	1008	1006	1006	1005	1004	1004	1003	1004	989	999
5	987	988	985	992	995	995	994	996	998	1001	997	997	996	1000	1002	1006	1016	1023	1015	998	1003	1000	996	997	999
6	997	997	993	995	993	993	992	992	993	998	1002	999	1008	1016	1010	1022	1045	1061	1032	1036	1008	997	998	960	1006
7	960	984	990	992	990	986	993	998	997	996	996	997	996	1003	1014	1023	1037	1023	1010	1007	1002	998	998	998	999
8	999	1002	1002	1001	1000	998	997	993	996	998	998	998	997	1006	1012	1024	1035	1052	1056	1034	1024	1020	1005	1001	1010
9	1002	1004	1008	1007	1004	1003	1002	1002	1004	1002	1002	1006	1008	1009	1008	1010	1024	1028	1019	1015	992	997	999	992	1006
10	992	1000	1003	1003	1003	1001	1001	1002	1003	1003	1000	996	998	1003	1010	1022	1029	1037	1034	1028	1004	971	989	992	1005
11	996	1000	1003	1007	1002	1002	1002	1002	1001	997	995	992	994	995	998	1007	1007	1003	1002	1001	1002	998	986	993	999
12	990	992	989	939	917	953	967	963	960	975	981	985	995	1015	1027	1040	1050	1034	1018	1016	1026	1026	1015	967	993
13 *d*	932	881	856	898	949	973	990	991	990	983	1007	1037	1064	1063	1096	1082	1100	1160	1120	1084	1048	912	912	901	1001
14 *d*	830	816	863	910	841	843	893	962	996	1000	1010	1016	1023	1034	1053	1079	1103	1092	1096	1062	971	992	953	966	975
15 *d*	917	843	851	787	560	652	729	804	924	955	1017	1051	1031	1085	1097	1128	1111	1139	1011	983	1011	972	966	895	*938*
16	932	997	994	1009	1011	1023	1023	1026	1026	1024	1028	1023	1022	1018	1016	1017	1021	1024	1023	1020	1017	1015	993	990	1012
17	983	979	972	967	971	991	998	1004	1009	1012	1010	1002	1008	1014	1010	1015	1032	1046	1031	1021	1015	1014	1010	1006	1005
18 *q*	996	980	986	997	998	1003	1006	1012	1016	1022	1019	1012	1008	1015	1014	1012	1020	1022	1022	1017	1014	1015	1010	1005	1009
19	990	945	963	985	996	999	1002	1004	998	997	998	999	998	999	1002	1003	1008	1012	1017	1020	1021	1015	1006	1004	999
20	1004	1003	1004	1003	1003	1003	1004	1007	1009	1008	1008	1008	1015	1021	1034	1054	1056	1043	1020	1015	1010	1014	1002	1000	*1014*
21	980	990	997	991	994	998	1000	996	997	996	998	999	997	1006	1009	1010	1011	1011	1009	1019	1032	1021	1012	1015	1004
22	1002	998	1000	1003	999	998	1002	1003	1002	1003	1000	1000	1000	1008	1016	1020	1023	1015	1007	1004	990	980	989	996	1002
23 *q*	988	981	986	993	995	998	998	1004	1004	1002	1000	1002	1002	1002	1002	1006	1007	1002	998	998	1000	1001	999	1000	999
24 *q*	1000	997	998	998	997	996	997	1002	1002	1002	1001	996	992	998	1004	1009	1005	1002	998	996	996	996	996	997	999
25 *q*	998	1000	1003	1003	1003	1001	1001	1001	1001	1000	998	992	990	992	995	996	996	996	994	993	992	994	996	997	997
26	998	1000	1002	1002	1002	1001	1002	1003	1000	996	988	986	984	984	1001	1032	1033	1009	1003	1009	1015	1004	978	1028	1003
27	923	919	975	998	1002	1000	1008	1005	1004	1004	1002	1002	994	996	1001	1015	1023	1016	1009	1004	1002	1001	1004	1005	996
28	960	953	978	993	1002	1004	1008	1009	1008	1002	998	1000	998	999	1010	1034	1048	1040	1029	1021	1014	1009	1004	1002	1005
29 *q*	996	994	993	992	995	1001	1006	1008	1005	1001	995	987	986	990	997	1003	1005	1003	1009	1024	1021	1011	1009	998	1001
30	1000	996	983	986	985	985	990	985	998	998	994	992	991	998	1004	1013	1018	1009	1014	1014	1029	1039	1028	1027	1003
31	1010	986	956	982	991	991	994	1002	1003	1002	1001	997	990	986	989	991	992	992	995	998	1007	1004	998	994	994
Mean	968	*967*	972	978	970	974	981	989	997	1000	1003	1006	1006	1011	1017	1025	1031	*1032*	1021	1017	1010	998	987	982	998

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

20 LERWICK — MARCH

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination			Vertical force							
	Maximum 14,000γ +		Minimum 14,000γ +		Range	Maximum 11° +	Minimum 11° +	Range	Maximum 46,000γ +		Minimum 46,000γ +		Range					
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ				°A.
1 *d*	7 32	425	-138	21 49	563	6 40	19·3	-25·3	3 1	44·6	15 38	1068	763	21 44	305	5,5,5,3,3,3,3,7	34	1	77·2
2 *d*	7 3	384	181	22 56	203	22 52	13·7	-17·5	20 19	31·2	20 2	1064	830	23 17	234	5,3,3,4,3,2,4,5	29	1	79·2
3	22 23	406	294	0 22	112	4 42	15·8	-11·0	0 35	26·8	10 50	1046	882	0 6	164	4,4,4,3,3,3,2,3	26	1	79·8
4	23 23	399	331	13 56	68	0 5	11·2	-1·2	3 14	*12·4*	15 39	1010	948	0 17	62	3,2,1,2,2,2,1,2	15	1	77·7
5	18 53	423	339	13 40	84	12 57	10·7	-6·7	19 26	17·4	17 49	1032	979	0 54	53	2,1,1,2,2,2,3,2	15	1	78·8
6	20 17	406	321	12 43	85	15 0	13·1	-11·8	17 15	24·9	17 11	1076	938	23 53	138	0,1,2,2,3,4,3,3	18	1	78·5
7	16 34	388	339	12 2	*49*	13 10	12·5	-3·9	0 28	16·4	16 29	1040	942	0 1	98	3,2,1,2,2,2,1,0	13	1	78·8
8	16 37	386	335	13 19	51	13 44	13·8	-5·5	21 45	19·3	18 6	1065	992	12 25	73	0,0,0,1,2,2,3,2	10	1	78·8
9	20 19	420	332	10 52	88	12 17	11·9	-6·9	20 11	18·8	17 0	1029	981	20 36	48	0,0,2,2,1,3,3,2	13	1	79·3
10	20 49	422	328	10 41	94	12 35	12·6	-14·8	20 44	27·4	18 47	1040	961	21 22	79	1,1,2,1,2,2,3,3	15	1	79·9
11	21 51	428	324	23 55	104	12 50	12·5	-28·4	23 58	40·9	16 2	1009	982	21 52	27	1,1,1,1,2,1,1,4	12	1	79·8
12	6 13	396	313	13 13	83	13 45	17·5	-28·2	0 1	45·7	16 29	1056	900	4 21	156	4,3,3,2,3,2,2,4	23	1	79·6
13 *d*	17 37	553	70	21 21	483	21 18	49·8	-18·5	3 37	68.3	17 49	*1217*	759	21 40	458	4,4,2,4,5,5,5,6	35	2	79·7
14 *d*	19 29	589	341	4 28	248	5 41	16·7	-32·9	21 57	49·6	19 28	1192	801	5 9	391	5,5,5,3,3,4,6,5	36	2	79·7
15 *d*	16 45	*995*	*-532*	5 7	*1527*	18 44	*95·4*	*-49·4*	18 48	*144·8*	16 27	1196	*463*	5 7	*733*	6,8,7,7,7,8,9,6	58	2	79·7
16	20 14	363	255	0 9	108	13 24	9·1	-20·6	0 31	29·7	8 25	1034	895	0 8	139	5,3,2,2,1,1,2,2	18	1	79·7
17	16 20	384	272	10 23	112	12 42	10·2	-4·6	5 53	14·8	17 21	1051	953	3 44	98	2,3,3,3,2,3,2,2	20	1	80·0
18 *q*	15 59	382	326	11 22	56	13 0	10·8	-4·4	1 13	15·2	16 50	1023	973	1 27	50	2,2,1,1,2,2,1,1	12	0	79·0
19	6 0	381	324	11 44	57	13 26	10·3	-6·7	1 54	17·0	20 20	1023	929	1 42	94	3,2,3,2,1,2,1,1	15	0	78·5
20	16 13	405	316	12 28	89	12 31	14·5	-8·9	21 7	23·4	16 41	1062	996	23 59	66	0,0,1,1,3,3,3,3	14	1	78·7
21	18 19	391	327	11 11	64	13 12	14·6	-9·2	8 27	23·8	20 30	1035	972	0 34	63	2,1,3,2,2,2,2,2	16	1	78·9
22	20 41	409	320	12 17	89	13 31	11·3	-5·0	20 9	16·3	16 25	1026	976	21 24	50	2,1,2,2,2,2,2,2	15	1	79·9
23 *q*	22 31	392	331	11 25	61	13 15	11·0	-3·4	8 40	14·4	15 56	1009	977	1 39	32	2,1,1,2,1,1,1,2	11	0	78·6
24 *q*	1 12	386	337	11 36	*49*	14 5	11·3	-4·0	8 43	15·3	14 58	1011	989	12 24	22	1,1,1,1,2,1,1,0	8	0	78·8
25 *q*	20 43	396	328	11 50	68	14 9	11·8	-2·9	8 23	14·7	2 54	1004	989	12 27	*15*	0,0,1,1,1,1,1,1	6	0	79·0
26	20 43	409	328	11 56	81	14 52	17·9	-13·0	21 27	30·9	16 5	1046	942	23 11	104	0,0,1,2,3,3,2,3	14	1	79·9
27	15 29	402	312	11 15	90	14 25	12·2	-4·3	1 27	16·5	16 15	1027	888	1 0	139	4,3,2,2,3,3,1,3	21	1	80·1
28	16 4	383	332	12 6	51	14 8	13·9	-7·1	1 38	21·0	16 36	1050	945	1 24	105	3,1,2,2,2,2,2,1	15	0	80·2
29 *q*	18 44	396	335	11 0	61	14 58	11·1	-7·1	22 37	18·2	19 50	1028	986	12 42	42	1,1,1,2,1,2,2,3	13	0	80·1
30	18 14	402	323	11 39	79	14 49	12·5	-15·7	21 0	28·2	20 58	1052	973	2 25	79	2,2,2,2,2,2,4,4	20	1	80·1
31	22 15	406	330	10 44	76	14 5	12·2	-8·8	3 5	21·0	0 1	1012	953	2 18	59	3,2,2,1,2,2,2,2	16	1	80·0
Mean	- -	429	267	- -	162	- -	16·8	-12·5	- -	29·3	- -	1053	918	- -	135	-	-	0·87	79·3

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

21 LERWICK (H) — 14,000γ (0·14 C.G.S. unit) + — APRIL

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *d*	377	349	367	382	373	377	378	359	351	334	336	333	331	343	366	367	379	385	386	390	377	374	383	371	365
2	372	367	370	372	366	360	374	373	361	354	317	330	345	357	363	367	377	384	387	389	387	386	379	359	367
3	361	321	339	370	377	373	378	373	360	347	317	318	327	347	361	372	386	386	390	383	385	382	381	381	363
4	382	382	375	374	376	383	377	372	349	341	329	324	329	346	358	368	378	396	385	384	382	383	383	380	368
5 *q*	382	378	376	378	374	380	379	372	356	342	331	327	335	349	365	367	369	380	382	383	386	384	383	383	368
6 *d*	381	379	380	378	393	400	392	390	369	342	330	330	338	346	359	363	369	435	400	400	375	380	392	388	375
7	385	379	386	382	383	386	386	377	361	339	332	327	335	345	361	374	376	383	386	395	382	368	347	357	368
8 *q*	377	372	368	366	369	371	369	361	344	328	323	316	325	336	346	353	361	370	379	378	376	380	379	381	359
9 *q*	380	378	380	381	381	381	379	368	351	333	320	314	317	336	348	361	373	384	393	404	386	379	373	378	366
10	388	382	376	371	377	381	380	373	360	342	329	325	338	357	367	375	403	430	402	387	385	385	380	377	374
11	374	378	377	373	363	377	380	369	355	342	332	324	325	340	356	359	372	377	401	400	394	393	394	395	369
12	391	393	383	378	385	390	392	386	370	352	330	335	336	340	383	419	464	445	416	396	377	377	376	363	382
13	352	358	350	345	360	371	375	373	361	346	331	320	323	341	357	357	375	386	421	422	399	396	381	387	366
14	365	265	335	352	331	373	376	367	359	342	325	324	320	324	342	356	392	380	387	387	388	390	392	389	357
15	384	386	382	380	384	392	386	373	369	354	336	327	340	348	383	461	547	528	422	367	366	365	367	371	*388*
16 *q*	369	371	372	371	370	373	377	376	364	348	334	325	328	328	339	356	372	386	386	392	393	388	388	393	366
17	395	390	387	377	376	378	376	372	357	340	328	323	326	329	341	358	371	386	392	389	392	390	390	393	369
18	389	383	380	380	379	379	377	369	350	340	316	310	314	329	338	358	379	389	396	396	394	396	394	389	368
19 *q*	387	386	383	383	382	381	376	361	342	328	321	323	336	341	337	355	373	377	390	397	397	398	394	399	369
20	394	387	394	396	393	391	392	384	363	343	335	329	321	348	364	374	381	390	399	397	396	394	387	307	373
21 *d*	-20	-163	259	346	369	364	363	350	339	336	327	318	324	336	348	361	370	377	381	388	387	380	375	371	*316*
22 *d*	350	310	241	319	208	138	305	316	293	279	291	325	397	458	406	368	416	402	415	389	378	356	354	345	336
23	344	350	348	341	341	349	344	334	322	315	313	317	325	337	334	331	352	363	369	380	378	376	376	376	347
24	375	366	351	340	345	344	352	353	343	322	319	315	326	344	356	366	375	382	389	394	388	389	398	375	359
25	367	377	358	363	348	362	369	365	351	337	339	336	339	326	339	355	378	393	434	398	380	374	371	371	364
26	371	370	372	370	371	371	364	349	330	291	284	285	318	367	374	434	476	407	387	389	382	379	371	368	366
27	342	330	352	355	366	362	358	338	330	312	322	327	338	363	374	382	394	410	406	403	400	380	382	382	363
28	375	374	370	354	334	367	372	366	354	336	334	343	343	366	379	398	381	392	389	393	399	382	383	386	370
29 *d*	381	376	373	373	364	374	357	316	364	358	343	336	341	351	363	399	389	397	391	388	392	386	399	386	371
30	380	379	377	376	383	385	381	366	342	332	321	321	327	346	365	373	390	400	413	422	395	391	390	383	372
Mean	362	348	362	367	364	367	372	363	351	335	325	*324*	332	347	359	373	391	*397*	396	393	387	383	381	376	365

MAGNETIC DECLINATION (WEST)
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

22 LERWICK (D) — 11° + — APRIL

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 *d*	0·4	-11·0	-8·1	-1·1	7·7	4·3	2·6	0·1	0·4	3·4	3·2	5·4	7·8	9·7	9·2	6·3	5·7	3·5	0·4	2·7	0·8	2·8	-1·4	3·7	2·4
2	-1·2	-1·2	1·6	0·8	4·0	12·2	10·7	-2·4	-3·4	-2·9	1·9	4·5	8·4	10·5	8·4	5·1	3·5	3·5	4·2	4·6	0·3	2·1	-1·8	2·7	3·2
3	1·8	7·0	2·2	2·9	0·8	0·6	-0·5	-2·0	-4·0	-2·1	2·6	8·3	10·4	10·6	9·2	7·3	4·8	-0·3	2·7	4·1	4·2	3·6	3·5	2·7	3·3
4	2·6	2·1	1·4	1·0	1·6	4·3	5·7	4·9	2·4	2·2	5·8	9·3	11·3	11·3	9·8	6·5	2·9	0·2	2·2	3·4	3·5	3·7	2·8	2·3	4·3
5 *q*	2·7	2·2	1·4	2·0	1·9	-1·1	-3·8	-4·2	-3·9	-2·9	0·7	4·6	8·7	10·8	9·3	6·7	3·6	3·4	3·2	3·3	3·5	3·1	3·2	3·2	2·6
6 *d*	2·8	2·9	2·8	1·7	2·2	1·7	-0·7	-2·0	-3·1	-2·9	0·5	5·2	9·8	12·1	11·6	8·9	7·3	13·3	4·7	-2·0	-3·5	3·4	2·9	2·2	3·4
7	1·8	9·8	0·7	-1·3	-1·8	-1·1	-2·0	-4·8	-4·8	-4·9	-2·9	2·9	8·4	10·8	10·4	8·3	6·5	6·1	4·4	3·1	5·6	0·1	-1·0	2·7	2·4
8 *q*	1·9	1·3	8·9	0·7	0·2	-0·1	-1·2	-3·0	-4·4	-2·9	-0·3	4·0	8·9	10·8	9·4	7·2	6·0	4·4	3·0	2·7	3·1	2·7	2·7	2·7	2·9
9 *q*	2·7	2·2	2·2	2·1	1·3	0·6	-1·2	-3 9	-5·4	-4·1	-1·7	2·1	6·0	9·7	9·5	8·8	7·9	6·6	5·4	4·1	2·6	2·2	2·2	2·8	2·7
10	2·4	0·6	-1·9	-2·5	-1·6	-1·4	-1·0	-3·5	-4·5	-2·9	-0·9	2·7	8·8	13·3	13·8	11·9	10·2	5·6	5·7	3·9	4·7	3·6	2·6	-2·0	2·8
11	-3·5	-1·4	-1·4	-4·8	-2·8	-3·2	-4·2	-4·4	-5·7	-5·0	-1·6	3·3	7·6	9·8	10·2	8·2	7·0	5·2	3·8	0·0	1·5	2·8	3·6	3·3	1·2
12	3·3	2·3	-3·4	-3·2	-2·8	-3·4	-2·6	-3·8	-3·6	-1·9	2·2	6·0	11·8	11·8	11·9	9·8	7·3	6·7	6·2	6·7	6·0	5·7	2·9	0·4	3·2
13	0·1	1·8	1·6	4·8	0·1	-4·6	-6·8	-6·7	-6·9	-5·2	-0·4	4·7	9·5	11·8	11·5	9·6	8·0	5·6	4·5	-0·6	-1·8	0·0	-2·6	1·0	1·6
14	0·9	0·3	-5·8	-1·6	-5·9	-5·7	-6·6	-7·8	-6·4	-3·5	-0·7	4·6	8·0	8·5	8·9	7·0	5·9	3·3	5·0	4·7	4·8	4·0	0·7	0·8	1·0
15	2·9	3·3	4·6	7·3	3·3	-0·3	-2·8	-0·6	2·0	0·6	1·7	6·7	11·6	12·5	12·6	12·2	14·4	14·5	4·6	4·6	5·9	2·9	1·6	2·7	*5·4*
16 *q*	2·8	2·8	2·0	1·3	-0·6	-4·1	-6·3	-7·5	-5·7	-4·6	-2·5	0·9	6·1	7·9	8·1	7·8	5·1	2·7	3·7	4·7	4·1	4·6	3·8	1·7	1·6
17	2·4	3·1	1·3	-0·8	-2·4	-3·8	-6·2	-6·2	-6·3	-4·8	-1·6	1·2	4·7	6·6	6·5	6·1	5·1	4·1	3·9	2·6	3·3	4·1	4·2	4·0	1·3
18	2·9	1·9	0·9	-0·1	-1·0	-1·4	-2·6	-3·8	-0·6	0·4	1·9	5·5	7·1	8·6	7·7	6·1	4·5	3·6	3·6	3·8	4·2	4·7	4·7	4·0	2·8
19 *q*	3·3	2·2	2·2	1·2	-0·8	-2·6	-5·0	-7·3	-6·5	-3·6	-0·5	4·2	9·4	9·8	8·3	6·8	4·2	2·7	2·8	3·9	4·8	6·0	4·6	4·5	2·3
20	4·6	-3·2	-0·7	0·3	0·2	0·4	-3·4	-1·8	-2·2	1·2	4·9	9·6	11·4	11·9	10·1	8·0	6·8	4·8	2·4	2·9	3·9	2·9	-1·6	-12·8	2·5
21 *d*	-41·3	-68·4	-18·1	-4·9	-7·4	-7·8	-7·2	-7·6	-8·5	-1·6	0·4	4·0	6·5	8·0	7·8	6·5	5·9	4·0	3·2	2·6	2·6	3·9	3·5	2·2	*-4·7*
22 *d*	-0·5	-12·3	-18·9	-14·1	9·3	7·9	-5·5	-0·2	-1·8	-0·9	7·8	13·6	15·6	13·6	12·6	13·7	11·6	4·8	0·8	5·1	2·8	3·2	4·1	2·3	3·1
23	-1·6	-3·4	-0·9	-2·5	-2·6	-3·1	-5·1	-7·1	-7·9	-4·4	0·6	5·6	9·9	9·8	8·8	6·5	5·0	3·3	2·8	3·4	3·4	2·6	2·2	2·9	1·2
24	3·8	2·8	1·3	0·4	-3·3	-6·3	-4·9	-5·2	-4·8	-3·5	-0·5	4·6	9·5	11·8	11·3	7·8	4·6	3·1	4·5	4·0	3·9	4·7	4·4	-8·2	1·9
25	-1·9	-1·6	3·6	0·2	-2·4	-3·9	-6·7	-7·4	-9·2	-4·0	-0·4	4·9	9·8	10·3	9·8	7·8	5·2	2·3	4·9	-3·0	-2·4	1·7	3·4	4·9	1·1
26	3·6	1·4	0·3	-1·4	-2·4	-3·8	-5·5	-6·1	-7·1	-6·2	-0·2	7·3	8·0	12·2	11·1	10·5	8·5	5·6	4·6	4·7	3·7	1·0	2·4	3·7	2·3
27	5·6	4·2	3·1	-0·2	-2·8	-5·8	-6·1	-7·4	-5·8	-1·4	2·0	4·4	7·8	8·7	6·0	6·5	5·2	5·0	2·4	0·5	2·4	4·5	4·8	4·2	2·0
28	2·8	1·8	1·0	0·8	2·5	-0·6	-4·6	-6·5	-5·5	-3·3	0·4	4·1	7·5	9·2	8·0	7·1	4·1	3·9	5·6	6·3	5·4	1·1	0·8	0·3	2·2
29 *d*	-1·6	0·4	-0·4	-0·9	-1·4	-2·2	-3·3	-2·3	4·7	1·5	2·9	5·5	9·5	12·0	11·3	10·2	8·1	7·1	5·0	4·2	3·9	-1·2	-1·0	-0·8	3·0
30	1·9	4·2	0·6	-2·0	-1·6	-1·6	-4·1	-4·0	-1·9	3·7	5·0	6·6	7·4	7·3	6·5	4·1	2·7	2·8	3·0	0·7	4·5	4·7	5·0	0·9	2·3
Mean	0·3	-1·4	-0·5	-0·5	-0·3	-1·2	-3·0	*-4·1*	-4·0	-2·2	1·0	5·2	8·9	*10·4*	9·7	8·0	6·3	4·7	3·8	3·1	3·1	3·0	2·2	1·5	2·2

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

23 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — APRIL

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *d*	927	910	928	945	934	917	957	978	982	990	995	995	993	996	1002	1011	1014	1015	1021	1014	1014	1004	972	938	977
2	967	981	980	986	976	949	942	973	985	989	1000	999	994	996	1004	1008	1011	1010	1008	1006	1008	1002	998	960	989
3	942	910	898	911	936	974	989	998	1003	1003	1006	998	996	996	1001	1002	1014	1032	1020	1010	1009	1007	1003	1003	986
4	1003	1000	1002	1003	1004	996	996	997	1007	1001	1005	1012	1009	1007	1014	1020	1027	1031	1025	1017	1013	1007	1004	1009	1009
5 *q*	1007	1005	1008	1007	1004	1000	1007	1009	1009	1007	1005	1006	1000	997	1002	1011	1010	1006	1003	1004	1004	1002	1002	1003	1005
6 *d*	1007	1004	1002	1004	999	993	992	992	1001	1003	999	995	991	993	1003	1010	1009	990	1024	1045	1013	1010	1003	1006	1004
7	1008	1011	1005	1005	1007	1003	1006	1013	1016	1021	1011	1002	999	999	1002	1013	1023	1021	1021	1019	997	1001	986	972	1007
8 *q*	966	992	1006	1009	1008	1004	1003	1007	1007	1004	1002	1003	1002	997	995	1002	1007	1005	1005	1006	1008	1005	1005	1002	1002
9 *q*	1002	1006	1008	1004	1003	1004	1003	1003	1005	1009	1009	1002	995	996	1002	1002	1007	1014	1020	1010	1011	1013	1009	1001	1006
10	971	972	977	995	1002	1001	1002	1004	1008	1005	1002	994	984	987	999	1008	1017	1040	1040	1027	1015	1009	1003	975	1001
11	960	974	991	995	990	977	987	996	999	997	997	990	985	989	997	1001	998	1006	1009	1013	1009	1003	997	995	994
12	995	975	965	996	986	986	985	987	993	997	1002	996	998	1002	1009	1037	1085	1083	1065	1052	1041	1023	1006	990	1011
13	971	963	966	955	931	966	983	998	1007	1008	1003	1000	997	994	1002	1008	1014	1020	1023	1040	1019	1011	1007	1008	996
14	970	845	917	927	908	967	992	1003	1007	1008	1005	1005	1014	1011	1002	1005	1017	1042	1020	1007	1004	1004	1004	997	987
15	999	998	997	984	972	975	989	989	986	997	1002	998	999	1006	1017	1053	1138	1159	1145	1088	1046	1027	1017	1009	*1025*
16 *q*	1008	1008	1008	1011	1014	1015	1014	1013	1011	1008	1009	1009	1009	1014	1011	1012	1014	1015	1015	1009	1011	1009	1006	1000	1011
17	996	995	990	1001	1008	1009	1009	1009	1013	1009	1002	1001	997	997	995	995	997	997	997	1004	1003	1003	1002	997	1001
18	997	1001	1002	1002	1002	1003	1006	1007	1005	1000	1001	997	999	1001	1003	1007	1012	1015	1012	1007	1007	1003	1002	1004	1004
19 *q*	1003	1002	1005	1004	1003	1004	1005	1006	1003	992	986	984	990	998	1002	1000	1005	1005	999	996	998	995	996	994	999
20	988	976	990	996	996	992	991	994	996	995	996	993	993	991	994	1002	1007	1005	1002	1007	1003	1004	1004	904	993
21 *d*	844	702	822	948	999	1007	1011	1009	1008	1001	1007	1013	1016	1011	1008	1004	1005	1007	1001	998	1001	1002	1005	1005	*976*
22 *d*	967	919	856	785	722	801	811	919	986	1025	1045	1034	1067	1117	1134	1095	1091	1098	1073	1026	1011	993	992	995	982
23	989	981	1001	1010	1008	1008	1015	1019	1019	1012	1003	1000	1006	1021	1032	1021	1012	1010	1006	1004	1004	1006	1004	1003	1008
24	1002	1007	1014	1011	995	995	993	998	1004	1012	1012	1008	1002	1006	1012	1018	1022	1023	1012	1006	1004	1001	993	918	1003
25	915	956	975	968	976	987	999	1001	1005	1005	1001	1001	998	1006	1008	1013	1019	1031	1030	1049	1032	1012	1006	986	999
26	976	992	1007	1012	1014	1015	1018	1017	1017	1017	1010	1006	1006	1014	1040	1059	1073	1062	1048	1029	1028	1026	1012	1001	1021
27	958	937	939	959	966	987	999	1006	1003	1003	1000	1000	997	1007	1026	1022	1021	1023	1034	1030	1014	1007	1000	995	997
28	993	1000	997	997	951	957	983	995	999	1000	994	989	996	997	997	1001	1018	1017	1006	999	996	997	989	980	994
29 *d*	971	986	993	995	998	987	993	993	964	973	983	982	980	989	1004	1019	1029	1015	1012	1014	1011	1016	995	992	996
30	988	981	991	997	996	999	1001	1000	998	998	1003	995	997	1000	1000	1001	1006	1010	1012	1025	1024	1013	1000	1001	1001
Mean	976	*966*	975	981	977	983	989	998	1001	1003	1003	1000	1000	1005	1011	1015	1024	*1027*	1024	1019	1012	1007	1001	988	999

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

24 LERWICK — APRIL

	TERRESTRIAL MAGNETIC ELEMENTS																3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination					Vertical force									
	Maximum 14,000γ +		Minimum 14,000γ +		Range	Maximum 11° +		Minimum 11° +		Range	Maximum 46,000γ +		Minimum 46,000γ +		Range				
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ					°A.
1 *d*	0 27	412	297	1 4	115	0 21	15·1	-16·3	1 13	31·4	18 4	1028	860	1 0	168	4,3,3,3,3,3,2,4	25	1	80·0
2	20 59	398	307	10 44	91	6 3	18·1	-5·1	7 36	23·2	16 35	1014	931	23 56	83	3,3,4,3,2,2,2,3	22	1	80·3
3	16 37	398	300	1 25	98	13 25	11·3	-5·4	8 8	16·7	17 31	1039	892	1 52	147	3,4,2,2,2,2,2,1	18	1	80·9
4	17 23	407	319	11 17	88	13 42	11·8	-0·7	17 12	*12·5*	17 40	1034	990	7 9	44	1,2,2,2,2,2,2,1	14	0	80·7
5 *q*	20 30	388	322	10 51	*66*	13 15	11·3	-5·2	7 1	16·5	16 18	1014	998	13 12	*16*	1,2,2,2,2,2,1,0	12	0	80·7
6 *d*	18 1	471	326	11 9	145	18 0	16·1	-10·6	20 8	26·7	19 32	1068	984	17 24	84	0,3,2,2,2,4,4,2	19	1	81·4
7	16 55	403	318	10 42	85	20 13	13·1	-8·7	8 39	21·8	16 13	1028	953	23 57	75	2,2,2,2,2,2,3,3	18	1	82·6
8 *q*	0 21	388	314	11 15	74	13 32	11·2	-4·8	8 28	16·0	3 57	1011	954	0 1	57	3,0,2,1,1,1,1,0	9	0	81·6
9 *q*	19 28	417	312	12 8	105	13 51	10·4	-5·8	8 50	16·2	18 40	1021	979	23 59	42	1,0,2,1,2,2,2,2	12	0	82·4
10	17 29	442	322	11 19	120	14 19	14·6	-5·0	8 25	19·6	18 12	1043	959	23 46	84	2,1,1,2,2,3,2,3	16	0	82·2
11	19 31	410	320	11 55	90	14 20	11·2	-6·9	0 7	18·1	19 25	1014	953	0 26	61	3,2,2,1,2,1,2,1	14	0	81·0
12	16 17	478	320	10 49	158	14 30	13·5	-4·9	2 27	18·4	16 47	1096	953	2 3	143	3,2,2,2,3,4,3,3	22	1	81·0
13	19 32	431	318	12 2	113	14 20	12·9	-7·8	8 25	20·7	19 28	1051	918	4 6	133	2,3,2,2,2,3,3,2	19	1	81·7
14	16 40	413	201	1 35	212	14 11	10·3	-11·1	2 29	21·4	17 24	1051	791	1 41	260	5,4,2,2,2,3,2,2	22	1	81·4
15	16 49	*576*	324	11 22	252	16 33	17·7	-8·8	6 50	26·5	17 10	*1174*	966	4 47	208	2,2,3,2,3,5,4,2	23	1	81·0
16 *q*	20 13	400	313	12 18	87	13 45	9·6	-8·1	7 36	17·7	18 12	1019	996	23 35	23	1,2,1,2,2,2,2,2	14	0	81·0
17	2 23	398	319	11 45	79	13 41	7·5	-7·2	6 43	14·7	8 29	1014	985	2 26	29	2,1,2,1,1,2,1,1	11	0	81·3
18	18 3	405	299	10 57	106	13 30	9·1	-5·4	7 42	14·5	17 30	1019	994	9 51	25	1,0,2,2,2,3,1,1	12	0	81·8
19 *q*	22 34	404	315	11 5	89	13 14	11·1	-7·7	7 51	18·8	16 45	1008	982	11 27	26	1,1,2,2,2,3,1,2	14	0	81·8
20	18 48	407	193	23 59	214	13 13	12·6	-23·8	23 57	36·4	21 54	1012	835	23 59	177	3,1,2,2,3,2,1,5	19	1	81·0
21 *d*	20 41	391	*-427*	1 5	*818*	13 29	8·6	*-160·2*	1 31	*168·8*	12 25	1019	*365*	1 31	*654*	8,4,2,2,2,2,1,2	23	2	81·3
22 *d*	13 47	485	-34	5 36	519	4 42	*27·4*	-25·8	2 7	53·2	14 28	1146	654	4 24	492	5,6,6,5,4,3,4,2	35	2	81·2
23	19 49	383	310	10 8	73	12 49	11·3	-9·6	8 3	20·9	13 54	1035	975	1 21	60	2,2,2,2,2,2,1,0	13	0	81·7
24	20 3	414	308	11 5	106	13 38	13·0	-14·4	23 24	27·4	17 5	1028	884	23 51	144	2,2,2,2,2,2,2,4	18	1	82·2
25	18 42	448	316	13 16	132	13 59	11·8	-12·6	8 26	24·4	19 39	1061	891	0 9	170	4,2,2,2,3,3,3,3	22	1	81·9
26	16 38	503	270	10 59	233	13 41	13·5	-9·6	8 55	23·1	16 29	1097	975	0 1	122	2,1,2,3,4,4,3,2	21	1	83·0
27	17 30	422	308	9 29	114	13 1	10·3	-9·7	7 16	20·0	18 35	1037	926	2 0	111	3,3,2,2,3,3,2,1	19	1	82·1
28	20 6	403	321	4 10	82	13 11	10·3	-7·7	8 11	18·0	16 51	1021	939	4 32	82	1,3,2,2,3,2,2,3	18	1	81·4
29 *d*	15 5	432	276	7 38	156	15 3	15·2	-7·6	7 22	22·8	15 59	1041	956	8 32	85	2,2,4,2,3,3,1,2	19	1	80·5
30	19 13	433	311	11 23	122	12 2	9·4	-6·3	6 51	15·7	20 3	1030	976	1 35	54	2,1,3,2,2,2,3,2	17	1	81·1
Mean	- -	425	267	- -	158	- -	12·6	-14·1	- -	26·7	- -	1042	914	- -	128	-	-	0·70	81·4

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

25 LERWICK (H) — 14,000γ (0·14 C.G.S. unit) + — MAY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *q*	377	382	375	380	384	383	379	365	349	335	324	322	338	359	380	380	397	418	436	414	387	386	384	372	375
2	373	375	371	375	356	370	379	362	343	344	336	332	332	391	374	399	396	397	415	440	409	373	377	377	375
3	380	368	351	359	339	336	365	346	335	326	318	325	370	374	374	399	391	435	436	418	410	385	381	387	371
4	384	375	377	377	385	381	378	367	352	333	324	328	336	343	378	418	398	431	424	410	390	381	367	332	374
5	335	368	372	374	375	374	367	357	345	333	329	328	342	355	375	393	417	434	428	422	404	381	369	363	372
6	361	355	353	348	358	362	370	368	350	315	305	335	346	341	412	443	425	476	470	436	405	381	306	354	374
7 *d*	347	258	341	361	356	331	212	215	284	311	308	308	335	376	322	314	369	440	488	463	425	415	348	345	345
8	362	360	359	359	359	361	347	344	360	347	337	312	310	322	333	360	382	390	390	388	388	382	383	374	359
9 *d*	373	371	361	359	364	365	364	344	320	333	334	334	336	347	386	388	419	446	432	435	433	389	374	367	374
10	360	364	359	350	348	348	349	329	319	320	329	318	314	336	336	379	436	481	486	432	396	368	354	362	365
11	352	348	360	359	350	357	359	348	322	311	310	320	338	359	366	364	398	444	461	434	402	375	376	366	366
12	362	370	369	364	348	354	365	366	346	330	338	338	334	346	353	385	380	407	421	415	408	412	389	377	370
13	392	312	315	338	306	358	387	379	362	327	312	334	334	321	337	357	376	390	395	393	386	381	373	369	356
14	370	368	368	373	376	374	371	357	341	321	315	312	320	337	352	372	387	407	448	424	397	381	379	382	368
15 *d*	342	333	325	341	353	347	291	301	341	305	290	317	328	360	368	366	383	384	382	389	403	368	347	122	337
16 *d*	241	252	-269	136	190	149	155	299	308	302	313	317	346	342	400	465	414	369	403	413	403	384	334	356	*293*
17	376	368	369	369	364	356	347	340	327	319	311	309	319	336	353	357	377	392	414	405	390	387	359	340	358
18	311	312	328	345	340	344	346	340	326	315	316	317	325	339	352	376	399	415	443	403	383	388	378	361	354
19 *q*	363	371	370	368	366	362	356	350	343	331	325	332	344	353	365	363	372	378	383	387	384	383	381	382	363
20 *q*	377	381	374	370	368	374	373	361	352	342	338	342	359	379	392	398	402	411	420	414	403	385	359	351	376
21 *d*	343	342	351	349	368	364	317	328	329	324	335	332	386	415	469	489	574	578	500	458	312	258	204	12	364
22	290	151	198	355	305	307	335	332	322	333	338	358	373	400	404	453	511	518	465	425	403	359	343	328	359
23	302	251	307	356	314	324	349	349	338	320	306	302	313	339	380	382	369	389	403	399	403	390	375	353	346
24	188	274	354	364	343	358	357	329	314	306	296	298	314	343	367	393	404	395	402	388	385	393	393	379	347
25	352	335	322	308	321	357	365	357	346	332	325	328	358	376	404	397	415	419	410	390	381	380	379	371	365
26 *q*	364	352	368	376	381	380	370	350	330	321	311	317	328	344	368	401	405	422	424	409	400	394	390	386	370
27	365	369	382	387	387	383	361	344	325	318	311	316	318	332	341	371	397	430	434	419	403	397	393	368	369
28	379	367	376	382	387	387	379	368	356	343	330	328	335	352	368	382	399	398	404	407	407	409	408	404	377
29	387	373	335	326	392	393	386	374	350	332	325	344	327	384	444	448	382	395	425	421	411	405	411	381	381
30	356	364	379	378	375	381	395	383	358	338	325	325	333	354	373	401	445	467	449	431	405	395	392	391	383
31	385	383	383	386	390	389	383	377	365	348	341	346	351	369	381	393	401	434	447	445	432	426	391	360	*388*
Mean	350	340	332	354	353	355	350	347	337	326	*321*	325	337	356	374	393	407	425	*430*	417	398	384	368	347	364

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

26 LERWICK (D) — 11° + — MAY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 *q*	2·2	3·3	3·4	-0·1	-3·8	-6·0	-7·3	-6·9	-5·6	-3·7	-0·6	2·6	6·1	8·4	7·6	5·5	3·8	2·9	1·2	1·9	2·9	3·7	0·7	0·7	1·0
2	1·8	1·6	0·9	1·6	1·4	0·8	-3·2	-3·7	-4·7	-4·4	-1·8	2·7	4·6	10·4	10·6	7·2	4·2	3·6	3·9	-2·6	-6·5	0·0	3·5	3·9	1·5
3	5·7	0·0	0·8	-2·3	-1·4	0·4	-6·8	-6·2	-5·2	-2·4	0·4	2·9	7·1	9·3	9·1	7·6	4·0	6·2	4·7	6·0	1·7	5·1	4·2	3·9	2·3
4	3·7	5·3	4·9	1·3	-1·1	-7·2	-8·0	-6·7	-6·6	-4·9	-1·6	3·0	6·8	9·0	11·1	9·7	4·6	6·3	5·2	0·4	4·7	3·8	2·8	-4·8	1·7
5	-0·4	1·9	-0·9	-2·4	-3·9	-6·2	-7·5	-7·8	-7·5	-5·6	-1·6	4·3	8·0	9·5	9·5	7·3	6·3	4·0	3·1	2·5	1·9	-3·1	0·8	-1·4	0·5
6	-3·0	-2·5	-8·9	-6·5	-5·1	-6·6	-7·3	-8·9	-8·8	-4·2	2·8	8·5	10·4	11·0	12·9	8·2	1·2	5·4	6·0	0·5	-0·2	-0·7	-4·9	-7·1	*-0·3*
7 *d*	-6·4	-1·6	-9·5	-6·0	-4·9	-2·6	6·0	8·0	-10·5	-2·2	-3·5	4·6	7·6	7·5	7·6	6·1	6·0	4·7	-0·3	2·5	2·8	4·6	2·4	1·7	1·0
8	0·6	-0·4	-1·9	-3·1	-3·6	-5·4	0·2	0·8	-3·1	-2·0	-1·8	1·7	3·7	6·2	7·6	8·8	6·5	5·6	4·5	3·7	3·3	3·7	1·8	1·4	1·6
9 *d*	0·1	1·0	1·3	0·4	-0·6	-3·0	-3·8	-3·8	-2·4	1·2	4·8	8·6	12·9	11·4	6·5	7·7	6·1	3·7	5·5	5·2	5·3	5·0	3·8	2·5	3·3
10	1·0	0·8	1·1	1·1	0·8	-4·0	-8·2	-7·8	-7·6	-6·5	-5·5	-4·2	-0·8	2·8	4·7	7·3	6·7	5·8	6·1	5·3	4·6	6·6	4·7	3·7	0·8
11	3·2	-0·9	-1·0	0·1	2·0	-0·5	-3·3	-2·3	-3·8	-1·9	0·9	2·8	4·8	6·1	5·7	5·9	6·2	4·8	4·1	6·5	4·7	4·8	4·6	3·2	2·3
12	2·2	0·9	-0·2	0·5	0·0	0·5	-2·8	-6·5	-6·6	-4·9	-1·8	3·2	6·1	8·0	7·3	6·9	5·7	4·8	3·9	2·7	2·7	5·1	1·5	1·4	1·7
13	8·1	6·2	5·0	7·0	11·4	-2·1	-6·9	-9·4	-6·1	-4·9	1·5	3·9	7·4	8·7	8·4	7·1	5·4	3·9	3·9	3·1	2·1	2·0	1·4	0·4	2·8
14	-1·0	-1·9	-2·3	-2·9	-3·2	-4·2	-5·9	-7·1	-7·8	-6·9	-2·9	1·4	6·1	9·9	11·4	10·4	8·1	4·8	4·7	4·8	-0·4	2·3	3·8	5·4	1·1
15 *d*	6·6	-0·1	9·0	7·5	-1·7	-11·8	-6·2	5·2	0·4	0·7	5·8	9·0	13·1	12·4	10·4	7·1	2·8	0·9	1·5	2·5	4·2	-0·4	5·0	-10·0	3·1
16 *d*	-5·0	-2·4	-2·5	-3·7	1·4	-6·9	-11·8	-6·4	-7·1	-0·1	1·7	4·0	8·2	11·0	11·3	-1·7	4·3	6·0	5·8	7·9	8·0	6·4	-2·6	-0·8	1·0
17	0·5	-0·5	-2·4	-3·7	-7·9	-8·5	-7·7	-8·2	-8·0	-3·4	1·2	5·3	7·5	9·4	9·7	7·5	6·5	4·4	3·1	4·4	5·9	1·9	-1·1	-3·0	0·5
18	-8·8	-6·8	-2·0	-4·3	-3·7	-3·8	-7·1	-7·9	-3·7	1·3	2·7	4·9	5·5	6·3	6·3	5·3	3·6	2·4	0·9	4·6	4·3	5·9	1·0	3·2	0·4
19 *q*	4·3	1·5	-0·6	-1·8	-3·3	-3·9	-5·3	-7·0	-6·2	-3·8	0·5	3·4	7·7	9·0	7·5	4·2	3·1	2·6	2·8	3·1	3·3	3·1	2·8	2·8	1·2
20 *q*	2·0	2·0	-0·3	-2·7	-4·2	-6·7	-8·9	-9·3	-6·5	-3·9	0·5	4·9	7·3	7·7	7·3	6·7	5·6	5·0	5·6	5·8	5·5	3·4	0·8	-0·9	1·1
21 *d*	-0·6	-6·6	-12·4	-10·4	-9·9	-5·5	-3·7	0·9	-1·5	1·2	3·5	8·2	7·4	4·8	11·4	10·7	14·4	18·3	16·2	3·5	3·0	7·2	-2·1	-4·2	2·2
22	-6·8	-6·7	-8·2	-1·8	2·9	-0·2	1·9	-4·7	-4·0	0·5	-1·8	0·1	3·5	2·9	3·5	5·6	2·2	7·0	8·3	12·2	4·7	3·9	1·9	-0·4	1·1
23	-3·2	-7·1	-9·8	-5·0	2·8	1·0	-1·6	-3·8	-3·6	-2·6	-0·4	4·3	7·1	6·7	7·6	5·4	3·9	4·3	5·0	4·5	5·7	2·7	3·9	3·3	1·3
24	-8·5	-9·4	-12·0	-7·1	-6·5	-7·1	-10·0	-7·1	-2·8	1·2	4·9	11·5	14·6	13·1	11·4	9·7	6·9	4·8	5·5	5·6	5·3	5·0	3·3	5·0	1·6
25	-1·0	-6·8	-4·9	-9·4	-3·2	-2·4	-6·9	-6·0	-3·7	-1·8	1·3	5·9	7·8	9·4	9·9	8·5	5·9	4·0	2·9	4·4	5·1	5·7	4·6	1·5	1·3
26 *q*	3·4	1·9	0·0	-1·2	-3·8	-4·9	-5·3	-6·6	-4·4	-2·7	-0·4	3·8	7·7	9·9	10·9	9·9	7·2	6·2	5·5	4·6	5·6	4·3	4·4	4·5	2·5
27	5·7	-3·4	-2·1	0·2	-1·0	-3·4	-3·5	-2·5	-2·8	0·5	3·1	5·5	6·5	7·5	7·5	6·8	3·8	2·3	4·3	5·0	5·1	5·5	4·1	4·7	2·5
28 *q*	0·8	-0·9	-1·0	-3·8	-3·9	-5·4	-6·6	-6·4	-4·3	-2·5	-0·5	2·7	5·5	7·9	8·9	7·8	6·7	5·3	4·7	5·3	4·2	3·9	4·5	2·3	1·5
29	2·3	2·2	2·0	-9·1	-4·9	-5·3	-4·8	-4·9	-3·3	-1·0	1·1	4·9	9·0	13·2	10·0	13·0	14·1	12·2	9·3	7·7	5·4	5·8	9·0	-0·1	3·7
30	1·9	-4·6	7·6	4·6	3·3	-0·4	-5·3	-8·0	-8·4	-6·9	-3·7	0·2	4·1	6·7	8·1	6·8	5·8	4·3	-1·8	3·6	4·9	3·5	3·2	2·7	1·3
31	1·1	0·3	-0·4	-1·5	-2·0	-2·9	-1·0	-2·3	0·8	4·3	5·2	8·4	11·0	12·7	12·7	9·6	4·3	4·7	4·8	5·8	6·1	5·1	3·8	0·7	*3·8*
Mean	0·4	-1·1	-1·5	-2·1	-1·9	-4·0	*-5·1*	-4·9	-5·0	-2·3	0·5	4·3	7·2	8·7	*8·9*	7·4	5·7	5·2	4·5	4·3	3·7	3·7	2·5	0·9	1·7

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

27 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — MAY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *q*	1002	1001	999	994	998	1006	1009	1010	1004	995	996	998	992	995	1001	1007	1013	1017	1020	1023	1021	1007	996	989	1004
2	992	994	998	995	989	978	990	1004	1010	1007	1002	999	1008	1005	1026	1034	1034	1011	1010	1041	1025	1003	1002	999	1007
3	980	960	948	932	933	938	966	983	993	1002	1007	1006	1013	1026	1026	1024	1027	1023	1041	1025	982	990	1000	1002	993
4	1005	992	974	981	988	1000	1005	1005	1002	1002	1000	993	994	995	994	1011	1031	1020	1030	1036	1020	1010	982	961	1001
5	961	977	1000	1011	1012	1011	1011	1013	1007	1002	996	989	983	987	988	998	1005	1022	1028	1030	1036	1038	1019	1013	1006
6	1004	973	952	974	975	991	984	989	994	997	993	994	1017	1030	1036	1073	1097	1065	1042	1042	1049	1046	956	955	1009
7 *d*	963	894	936	969	995	975	947	908	921	956	1010	1030	1056	1049	1024	1025	1022	1047	1078	1085	1078	1068	1000	970	1000
8	1001	1021	1029	1025	1023	1020	1011	999	997	1010	1018	1023	1016	1017	1046	1047	1046	1036	1024	1018	1014	1010	1011	1011	1020
9 *d*	1000	1011	1019	1013	1013	1018	1018	1019	1011	1018	1028	1032	1043	1056	1097	1103	1122	1133	1097	1058	1047	1036	1030	1017	*1043*
10	1018	1017	1020	1019	1008	993	1009	1020	1019	1016	1019	1040	1038	1033	1034	1025	1042	1049	1031	1033	1040	1029	1001	1002	1023
11	988	960	991	1005	1002	1003	1012	1011	1013	1017	1021	1024	1012	1013	1015	1016	1013	1029	1043	1032	1022	1018	1015	971	1010
12	971	1007	1010	1004	1010	1003	1000	1006	1015	1018	1011	1006	1015	1016	1018	1018	1024	1020	1021	1033	1030	1013	1011	1012	1012
13	999	917	839	917	924	959	1011	1031	1032	1024	1023	1027	1029	1023	1017	1018	1021	1020	1017	1017	1022	1017	1015	1013	997
14	1012	1012	1017	1017	1016	1017	1017	1016	1015	1016	1010	1004	998	992	993	998	1007	1017	1033	1052	1051	1026	1012	1005	1015
15 *d*	969	943	939	885	955	1003	1035	1012	1012	1034	1018	1048	1057	1070	1032	1018	1022	1028	1032	1029	1023	1041	949	951	1009
16 *d*	886	900	886	734	780	818	891	1003	1047	1050	1047	1054	1048	1052	1059	1148	1115	1053	1027	1046	1046	1018	955	936	983
17	1018	1029	1032	1035	1035	1032	1032	1032	1032	1027	1018	1005	1005	1005	1005	1010	1010	1018	1018	1005	1018	1020	990	956	1016
18	953	946	939	962	980	984	998	1012	1019	1021	1015	1013	1012	1014	1021	1028	1040	1047	1050	1039	1032	1020	1019	1007	1007
19 *q*	994	1006	1020	1022	1023	1023	1022	1021	1020	1023	1018	1012	1009	1022	1025	1027	1022	1017	1015	1012	1015	1016	1017	1016	1017
20 *q*	1016	1011	1014	1016	1018	1014	1014	1015	1013	1013	1009	1003	1004	1017	1028	1039	1038	1035	1033	1033	1030	1021	1008	996	1018
21 *d*	980	956	916	893	884	914	952	936	957	966	971	989	1018	1091	1131	1126	1108	1069	1082	1033	891	861	924	889	*981*
22	906	879	880	934	953	902	940	966	993	997	1011	1019	1044	1083	1084	1075	1111	1103	1075	1034	1035	983	983	980	999
23	960	929	926	932	935	886	939	980	1004	1010	1003	1003	1003	1006	1008	1030	1032	1027	1027	1021	1011	1013	997	971	985
24	863	842	919	969	985	986	1001	1008	1000	1003	1005	996	1002	1021	1027	1032	1038	1038	1021	1011	1003	997	997	970	989
25	929	928	899	911	930	946	985	1001	1003	1011	1016	1018	1032	1068	1069	1063	1054	1060	1062	1050	1030	1017	1003	982	1004
26 *q*	965	963	980	1002	1016	1026	1028	1028	1026	1020	1009	1000	995	1002	1007	1016	1028	1030	1033	1037	1026	1015	1007	1001	1011
27	964	936	954	965	987	1000	1007	1010	1007	996	990	994	1001	1007	1014	1014	1024	1028	1019	1017	1015	1008	998	982	997
28 *q*	977	992	999	1007	1009	1009	1010	1013	1007	999	998	994	988	984	987	987	989	997	1007	1003	1001	1001	997	985	997
29	978	956	882	844	937	978	996	1006	1014	1014	1010	1002	1010	1001	1042	1086	1086	1028	1014	1029	1020	1010	994	925	994
30	909	919	949	948	965	964	981	999	1009	1009	1006	998	995	998	997	995	1003	1037	1081	1055	1024	1008	997	994	993
31	998	1001	1003	1005	1003	1005	1004	1005	1003	998	998	992	991	994	1001	1015	1028	1031	1031	1036	1029	1023	1009	989	1008
Mean	973	964	*963*	965	977	981	994	1002	1006	1009	1009	1010	1014	1022	1024	1036	*1040*	1037	1037	1033	1022	1012	997	985	1005

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

28 LERWICK — MAY

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination			Vertical force							
	Maximum 14,000γ +		Minimum 14,000γ +		Range	Maximum 11° +	Minimum 11° +	Range	Maximum 46,000γ +		Minimum 46,000γ +		Range					
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ				°A.
1 *q*	18 35	448	318	11 7	130	14 10	10·3	−8·5	6 13	18·8	19 43	1028	986	23 15	42	2,2,2,1,3,3,3,2	18	0	80·7
2	20 2	455	312	11 1	143	14 23	12·9	-17·7	19 58	30·6	19 50	1075	975	5 17	100	1,2,2,3,4,3,4,2	21	1	81·4
3	18 0	487	307	10 9	180	13 43	11·4	-11·7	20 6	23·1	18 42	1064	926	3 9	138	3,3,3,2,3,4,4,2	24	1	81·8
4	18 20	454	314	23 57	140	14 3	12·2	-10·0	6 13	22·2	19 11	1041	946	23 57	95	3,3,2,1,3,3,3,3	21	1	81·4
5	18 58	432	311	0 6	121	13 51	10·2	-8·8	7 45	19·0	21 13	1051	951	0 1	100	3,1,1,2,2,3,3,3	18	0	84·0
6	17 54	529	216	22 33	313	18 0	16·0	-15·3	22 47	31·3	16 29	1105	883	22 52	222	3,3,2,3,4,4,4,5	28	1	83·0
7 *d*	18 35	497	123	6 57	374	7 15	16·0	-13·9	2 16	29·9	18 58	1092	848	1 35	244	5,3,5,4,4,5,3,4	33	1	83·8
8	18 7	404	297	11 59	107	15 27	10·8	-7·8	5 14	18·6	14 59	1056	983	0 1	73	3,2,3,3,3,3,2,2	21	1	85·1
9 *d*	7 25	478	230	7 25	248	12 28	19·8	-20·7	7 25	40·5	17 34	1139	974	7 26	165	2,2,6,4,4,4,4,2	28	1	84·2
10	17 39	528	307	12 36	221	21 51	11·4	-12·3	8 41	23·7	17 24	1064	985	5 18	79	1,3,2,2,2,5,4,3	22	1	84·2
11	18 8	479	305	10 48	174	20 38	7·8	-8·6	6 57	16·4	18 34	1048	943	23 59	105	3,2,2,2,2,4,4,4	23	1	84·2
12	21 27	435	323	9 11	112	13 37	8·9	-8·5	8 11	17·4	20 0	1038	943	0 1	95	3,2,3,2,2,3,2,3	20	1	85·2
13	0 37	412	262	1 57	150	1 19	15·7	-12·3	8 2	28·0	8 17	1040	817	2 22	223	5,4,3,3,3,2,1,1	22	1	84·3
14	19 17	462	307	11 6	155	14 55	11·6	-8·5	8 12	20·1	20 4	1060	988	13 54	72	0,1,2,1,2,3,3,3	15	0	85·3
15 *d*	20 39	406	1	23 25	405	12 53	17·6	-37·5	23 58	55·1	13 13	1082	839	23 10	243	4,5,5,4,4,2,2,6	32	1	84·3
16 *d*	15 5	568	*-543*	2 31	*1111*	2 15	*51·2*	*-57·9*	2 57	*109·1*	15 33	*1192*	*637*	2 58	*555*	8,7,6,3,5,5,4,4	42	2	84·8
17	18 46	427	296	11 27	131	14 20	15·6	-12·8	5 20	28·4	4 44	1049	952	23 30	97	2,2,2,3,3,3,3,3	21	0	85·4
18	18 18	452	292	0 39	160	13 40	6·9	-11·2	0 43	18·1	18 15	1053	935	2 33	118	3,3,2,1,2,3,3,3	20	0	86·2
19 *q*	19 27	388	316	12 2	*72*	14 0	9·7	-7·5	17 17	17·2	15 22	1028	992	0 42	*36*	2,0,1,2,2,1,1,1	10	0	87·3
20 *q*	18 52	423	333	10 26	90	14 16	8·5	-10·5	7 23	19·0	15 25	1041	985	23 23	56	1,1,1,2,2,1,2,3	13	0	87·5
21 *d*	17 25	*707*	-217	23 14	924	21 17	32·5	-19·0	19 54	51·5	14 52	1118	745	21 12	373	4,3,3,3,5,6,6,7	37	2	86·6
22	16 54	540	-95	1 52	635	19 34	17·6	-18·9	1 54	36·5	16 46	1128	785	1 42	343	7,4,4,3,3,4,4,3	32	1	85·7
23	18 45	414	223	1 17	191	4 55	17·5	-14·2	1 56	31·7	15 43	1039	865	5 24	174	4,4,4,2,3,3,2,4	26	1	84·0
24	16 30	419	117	0 41	302	12 10	15·5	-16·1	1 45	31·6	17 1	1041	817	1 40	224	6,3,3,3,3,2,2,3	25	1	84·5
25	17 34	425	293	3 10	132	14 36	10·5	-17·5	3 6	28·0	13 47	1075	871	2 49	204	3,4,3,1,3,2,3,4	23	1	84·0
26 *q*	17 47	429	306	10 27	123	14 52	11·5	-8·3	7 30	19·8	19 22	1038	946	0 1	92	3,2,2,2,3,2,2,2	18	0	85·7
27	17 51	439	307	10 35	132	13 54	8·4	-5·1	1 27	*13·5*	17 10	1031	909	1 3	122	4,3,3,1,2,3,2,3	21	0	83·8
28 *q*	19 7	416	325	11 17	91	14 11	9·5	-7·5	6 58	17·0	7 42	1013	975	0 52	38	2,1,2,2,2,2,2,2	15	0	83·9
29	15 29	500	282	3 0	218	15 30	16·0	-15·1	3 40	31·1	15 57	1107	798	3 2	309	5,5,2,2,5,5,2,4	30	1	83·5
30	17 3	482	320	10 50	162	2 47	11·4	-10·7	1 15	22·1	18 16	1090	896	0 49	194	4,3,3,2,2,4,4,2	24	1	83·5
31	19 11	468	333	10 24	135	14 6	14·5	-4·7	23 56	19·2	19 35	1041	973	23 59	68	1,1,2,2,2,3,3,4	18	0	84·0
Mean	− −	464	220	− −	244	− −	14·5	-14·2	− −	28·7	− −	1066	905	− −	161	−	−	0·71	84·3

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

29 LERWICK (H) — 14,000γ (0·14 C.G.S. unit) + — JUNE

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *d*	326	243	281	304	274	297	305	373	370	343	306	312	344	355	384	489	561	495	460	415	393	382	374	375	365
2	371	370	370	366	353	333	318	339	343	327	326	330	326	341	360	371	379	390	398	395	398	394	382	370	360
3	365	363	365	366	373	372	371	370	361	345	336	340	354	367	375	403	426	419	412	400	390	383	381	384	376
4 *q*	383	377	375	376	377	375	363	347	331	317	311	315	340	341	366	379	401	419	419	418	416	403	388	381	372
5	378	383	382	383	369	373	365	348	329	310	305	319	364	359	386	401	391	408	420	425	405	397	397	397	375
6	396	396	395	395	394	389	374	357	348	341	329	317	335	348	374	381	401	417	432	425	417	409	407	397	382
7	392	384	383	389	390	380	370	358	351	340	333	347	369	379	373	385	427	428	425	419	414	416	396	389	385
8	383	386	389	392	391	379	370	358	345	334	332	313	341	336	353	375	408	408	416	438	424	407	379	374	376
9	347	364	362	373	378	374	371	360	348	336	336	349	364	380	382	412	390	404	421	424	416	404	391	384	378
10	384	386	387	386	376	368	360	353	348	331	330	333	346	371	375	382	397	405	415	412	405	401	398	396	377
11	394	388	388	390	389	387	382	368	356	345	337	337	347	361	371	379	395	406	418	449	426	420	411	409	386
12	406	403	398	398	401	398	387	372	349	337	322	334	345	369	381	399	408	413	430	433	423	410	388	376	387
13	352	369	387	383	358	361	364	376	366	354	337	341	337	364	370	398	410	428	453	426	413	388	376	379	379
14	382	384	383	385	388	384	376	363	345	332	312	323	334	352	363	403	442	420	410	407	397	394	387	383	377
15 *q*	380	381	383	383	380	378	375	370	360	348	344	346	353	365	380	387	395	402	398	403	398	394	390	387	378
16 *q*	385	385	386	388	389	388	381	372	362	356	351	348	352	359	375	387	401	408	406	408	405	405	410	406	384
17	402	390	388	392	391	383	376	366	359	356	352	346	357	369	386	408	456	462	471	449	430	412	397	373	*395*
18 *d*	377	370	360	370	378	376	380	370	354	332	309	322	353	338	373	401	421	426	444	450	433	398	383	365	378
19 *d*	337	309	335	324	356	350	311	293	297	296	307	322	352	384	376	375	380	382	380	394	402	401	388	378	*351*
20	369	381	371	373	372	365	371	366	352	331	340	337	344	353	373	407	433	441	427	416	412	405	384	372	379
21 *d*	376	370	356	346	368	372	363	360	354	341	316	334	358	323	372	366	416	477	497	464	425	384	349	279	374
22	362	361	273	316	336	344	341	355	352	326	311	323	336	344	369	369	380	394	402	406	406	402	397	383	358
23	380	381	380	375	377	377	368	351	339	296	315	314	330	364	390	404	410	405	410	424	418	399	392	388	374
24	379	384	390	391	387	389	385	376	356	*	*	*	334	354	371	386	396	400	406	418	418	402	398	395	*
25	396	394	392	388	387	383	378	368	353	340	334	341	350	352	391	410	413	417	436	440	452	412	423	369	388
26 *d*	343	327	359	389	394	376	368	375	360	331	320	350	367	366	420	510	401	419	402	418	430	415	401	400	385
27	399	393	387	386	386	377	375	358	348	342	340	320	344	350	388	391	413	434	409	410	401	395	393	389	380
28 *q*	384	383	383	384	383	376	362	350	344	338	350	345	350	369	386	377	380	388	394	399	399	390	387	387	375
29 *q*	387	383	382	382	382	383	377	370	351	331	316	318	336	363	380	388	408	412	406	406	400	393	387	386	376
30	384	385	390	391	391	389	377	360	345	356	361	369	373	380	415	420	432	427	410	407	412	408	400	391	391
Mean*	377	372	371	375	375	372	365	359	349	335	*328*	333	348	359	379	399	413	419	*421*	420	412	401	391	381	377

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

30 LERWICK (D) — 11° + — JUNE

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 *d*	-2·9	-7·0	-10·8	-4·9	2·1	-1·9	-3·5	-5·7	-8·2	-3·3	4·1	3·6	5·6	7·8	9·0	13·3	7·2	6·1	2·4	2·0	3·6	5·0	4·5	3·7	1·3
2	2·0	0·3	-1·0	-1·9	-2·9	-1·7	-0·5	-2·8	-4·6	-3·7	1·0	5·7	8·3	8·6	8·6	5·9	3·5	2·9	2·0	2·8	3·8	3·9	3·4	2·0	1·9
3	0·0	-3·2	-5·2	-6·6	-8·2	-7·7	-6·5	-6·6	-5·7	-5·8	-1·4	4·4	8·5	8·5	9·2	6·3	5·8	4·9	3·8	3·5	4·8	3·5	3·5	3·7	0·6
4 *q*	1·9	-0·5	-2·6	-4·8	-6·5	-8·4	-7·2	-4·8	-2·7	1·0	5·2	9·5	11·5	10·5	9·7	7·0	5·8	5·3	5·7	6·6	2·9	3·9	4·4	2·2	2·3
5	1·1	-0·8	-4·6	-3·6	-3·1	-3·9	-5·6	-5·8	-5·2	-1·4	4·8	7·4	10·6	10·3	10·0	7·7	5·7	6·7	7·8	6·6	6·3	5·4	4·8	4·7	2·7
6	2·1	1·6	2·1	-0·1	-3·8	-6·0	-6·0	-2·9	-2·3	-0·5	2·9	7·1	10·0	11·7	11·1	10·2	6·9	5·6	3·7	3·0	3 9	4·0	3·8	2·7	2·9
7	3·4	2·4	-1·5	-1·8	-4·6	-6·5	-8·7	-8·9	-7·0	-3·8	0·5	5·3	8·5	8·1	7·6	9·3	9·7	7·4	5·2	2·8	4·8	0·0	-0·8	3·2	1·4
8	1·6	0·6	0·2	-0·5	-2·8	-5·7	-8·7	-10·0	-7·9	-4·4	-0·2	6·6	11·3	12·0	12·6	11·7	10·1	6·5	4·6	4·9	2·9	2·8	3·8	3·7	2·3
9	1·6	-1·5	-7·6	-3·4	-5·2	-7·5	-8·2	-7·2	-4·2	-0·9	2·0	4·8	7·6	9·5	9·3	8·7	6·5	5·0	4·8	4·7	4·7	2·8	1·8	2·8	1·3
10	4·0	2·8	0·4	1·1	-3·1	-5·8	-4·6	-4·2	-4·7	-3·2	-0·8	3·4	6·0	8·5	8·6	7·8	5·2	5·3	5·3	4·4	3·0	3·1	2·9	2·5	2·0
11	1·6	1·9	1·1	1·0	1·3	-2·3	-5·5	-5·7	-3·8	-0·2	4·8	9·6	11·0	12·3	11·5	8·7	6·3	4·7	3·8	4·8	3·8	3·3	2·6	2·9	*3·3*
12	1·2	2·7	1·9	-0·7	-4·5	-8·7	-9·7	-10·3	-7·7	-3·7	0·4	6·0	9·2	8·6	7·7	5·7	4·7	4·8	4·9	5·4	5·2	7·7	3·7	2·9	1·6
13	4·4	1·0	-1·6	2·9	4·6	0·2	-0·6	-5·5	-4·2	-0·7	3·2	7·2	8·2	8·8	8·6	7·6	5·3	6·6	5·8	2·3	-0·3	1·9	2·8	2·1	2·9
14	1·4	0·6	-0·4	-1·8	-3·8	-5·5	-7·5	-8·1	-6·4	-3·4	1·8	5·7	8·8	9·5	7·7	7·2	6·7	4·0	3·2	4·6	4·8	4·4	4·0	3·2	1·7
15 *q*	2·4	0·6	0·0	-1·6	-1·3	-1·1	-3·5	-5·2	-3·6	-3·2	-2·9	1·0	4·5	6·4	6·6	5·9	4·9	4·8	4·0	3·6	3·0	2·8	2·3	2·0	1·3
16 *q*	1·0	0·5	-0·6	-1·8	-2·6	-4·1	-4·2	-2·9	-2·7	-1·1	0·7	3·0	5·4	6·8	7·9	7·1	6·8	5·7	4·3	3·9	3·9	3·6	4·9	5·7	2·1
17	1·6	-1·8	-1·8	-2·3	-4·5	-7·9	-9·3	-8·5	-6·6	-3·2	1·8	5·8	9·5	9·8	9·7	10·0	8·6	5·3	8·4	7·6	6·9	5·7	5·4	2·0	2·2
18 *d*	-0·3	-0·5	-3·7	-5·6	-7·9	-10·5	-11·0	-11·3	-7·7	-5·5	0·0	4·3	7·8	10·0	12·9	13·5	7·4	4·6	6·2	7·1	5·3	5·4	3·9	0·7	1·0
19 *d*	-3·5	-19·0	-6·7	-10·6	-13·7	-5·6	0·0	-2·3	-3·7	2·8	8·3	9·7	11·1	10·0	9·5	8·6	6·2	4·7	3·0	4·0	4·1	3·7	0·8	1·1	0·9
20	1·5	-0·8	-2·8	-4·9	-7·0	-11·2	-9·8	-10·2	-9·2	-3·7	0·6	5·9	11·8	14·7	15·3	16·1	11·7	7·0	3·1	2·4	4·5	-0·7	-3·7	-2·1	1·2
21 *d*	-2·2	-1·0	-1·6	-2·5	-10·2	-11·6	-14·0	-12·9	-13·0	-6·9	-10·0	9·3	14·4	12·5	13·3	10·7	9·8	7·4	4·9	2·5	2·1	0·3	-4·6	2·2	*0·0*
22	-10·7	-3·6	-0·7	-2·5	-5·9	-5·1	-10·3	-4·7	-8·4	-4·7	1·0	5·4	8·3	8·7	8·3	8·5	6·0	4·0	7·7	8·3	2·9	3·0	-2·7	0·3	0·5
23	0·3	0·3	0·3	-2·0	-4·4	-6·8	-9·1	-10·0	-9·5	-5·9	1·1	6·8	12·1	14·2	13·0	8·8	6·6	5·2	4·4	4·7	2·9	2·4	-0·9	-0·7	1·4
24	0·3	-0·8	-0·1	-2·7	-8·3	-6·9	-8·7	-8·1	-6·0	*	*	10·7	11·8	16·1	16·4	14·3	11·0	7·4	4·7	4·4	4·4	1·8	1·1	0·1	*
25	1·3	3·3	2·3	-1·1	-3·8	-6·4	-9·1	-9·7	-8·1	-5·4	0·2	6·1	12·1	15·9	13·6	8·8	5·9	4·4	5·8	5·2	6·6	4·6	-9·0	0·3	1·8
26 *d*	5·0	2·6	-4·6	-4·6	-5·1	-4·6	-3·9	-6·4	-5·5	-1·8	1·0	3·0	6·8	6·9	5·9	6·3	2·4	5·5	4·9	5·9	2·9	2·0	5·3	0·2	1·3
27	2·5	3·4	0·5	-3·6	-5·8	-6·1	-3·2	-6·3	-0·7	-2·3	-0·6	2·3	5·6	8·6	7·7	4·0	1·9	4·9	4·0	4·8	4·8	3·6	2·5	1·1	1·4
28 *q*	0·7	-0·8	-1·6	-3·6	-5·6	-6·5	-7·6	-6·9	-6·3	-3·1	0·7	5·1	7·7	7·2	6·8	4·1	4·0	3·9	4·2	4·9	4·2	3·0	2·1	1·0	0·7
29 *q*	0·3	0·1	-1·3	-1·4	-1·6	-3·1	-4·6	-7·5	-8·2	-6·4	-3·4	2·8	7·7	9·7	8·3	6·7	5·1	4·1	3·0	3·5	4·8	4·9	3·6	2·6	1·2
30	1·1	0·7	-0·4	-2·8	-4·4	-7·3	-7·4	-6·0	-4·7	-0·2	3·1	5·7	8·1	10·2	12·2	10·2	6·3	4·3	3·9	5·2	5·5	6·0	6·6	5·1	2·5
Mean*	0·8	-0·5	-1·8	-2·6	-4·3	-5·8	-6·5	-6·9	-5·9	-2·9	1·0	5·6	8·9	9·9	9·7	8·5	6·3	5·2	4·7	4·5	4·1	3·5	2·1	2·2	1·7

*Mean for 29 days.

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

31 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — JUNE

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *d*	948	867	834	815	829	883	934	979	1001	1008	1021	1011	1012	1027	1034	1056	1106	1092	1074	1056	1039	1025	1013	1010	986
2	1011	1012	1012	1007	1001	989	972	971	983	997	1001	998	995	994	998	1011	1021	1019	1019	1018	1013	1009	995	947	1000
3	957	957	960	977	986	996	1002	1003	1007	1012	1012	1005	997	1005	1012	1021	1024	1030	1028	1021	1009	1007	1005	999	1001
4 *q*	993	990	995	999	1001	1002	1010	1012	1008	997	993	990	985	996	997	1000	1007	1016	1021	1019	1018	1011	1008	1009	1003
5	1007	1006	1007	1008	1007	1008	1000	1005	1005	1000	992	981	972	988	1002	1020	1040	1035	1017	1013	1016	1012	1007	1007	1006
6	1011	1014	1013	1012	1012	1014	1013	1010	1004	1000	1000	997	995	1007	1013	1019	1019	1021	1018	1022	1020	1016	1012	1014	1011
7	1013	1014	1019	1018	1019	1021	1017	1010	1004	998	994	989	992	1011	1024	1012	1006	1016	1021	1027	1019	1012	1006	999	1011
8	995	1003	1009	1015	1020	1022	1018	1017	1011	1008	1006	1004	1001	1012	1015	1016	1016	1024	1027	1023	1029	1029	1021	996	*1014*
9	943	933	929	961	987	1008	1015	1015	1012	1006	1001	1002	1004	1008	1012	1017	1038	1034	1026	1024	1022	1018	1018	1009	1002
10	998	995	1002	998	997	1010	1011	1011	1010	1011	1011	1008	1001	1004	1011	1010	1010	1012	1017	1020	1017	1012	1009	1005	1008
11	1009	1011	1009	1009	1010	1011	1012	1013	1012	1011	1006	998	998	1003	1004	1006	1010	1015	1017	1011	1020	1014	1008	1004	1009
12	1005	1006	1005	1009	1011	1013	1011	1005	1005	998	995	985	979	984	997	1009	1020	1024	1024	1025	1025	1016	1003	992	1006
13	949	951	973	983	977	956	966	973	972	996	999	993	995	998	1016	1027	1040	1038	1028	1033	1028	1024	1016	1012	998
14	1010	1006	1006	1008	1009	1012	1019	1019	1008	998	992	986	983	984	986	991	1009	1039	1041	1027	1022	1016	1011	1009	1008
15 *q*	1020	1006	1007	1008	1003	998	997	1003	1005	1001	999	1004	1006	1004	998	997	1003	1007	1015	1016	1013	1010	1010	1009	1006
16 *q*	1008	1007	1005	1003	1005	1006	1006	1000	995	995	997	997	997	1000	1000	998	996	998	1005	1010	1009	1007	1003	1001	1002
17	997	994	995	1003	1003	1001	998	998	997	992	988	988	989	992	998	1003	1010	1039	1041	1056	1036	1010	1010	1014	1006
18 *d*	1011	999	972	969	978	992	997	999	1000	991	991	994	1000	1003	1005	1019	1045	1064	1046	1033	1042	1033	1020	1006	1009
19 *d*	991	937	935	905	923	944	946	955	976	991	997	1008	1032	1040	1021	1009	1004	1004	1008	1002	999	1008	1015	1013	986
20	1001	956	967	993	999	1003	1003	1006	1004	1005	996	1001	1002	1002	1003	1002	1015	1032	1041	1032	1015	1007	997	985	1003
21 *d*	992	997	983	946	959	990	997	991	988	991	997	994	990	1002	994	1020	1027	1047	1039	1032	1019	1005	985	895	995
22	904	942	883	856	881	907	944	979	996	997	995	986	989	1004	1015	1013	1014	1018	1012	1012	1011	1005	1004	999	*975*
23	1002	1003	1002	1006	1009	1012	1016	1014	1012	1002	996	992	989	984	990	996	1005	1016	1017	1013	1016	1012	997	985	1003
24	989	993	988	985	992	1003	1004	1005	1005	1006	998	987	987	981	984	987	987	1003	1009	1001	1001	1004	1004	1000	996
25	994	991	994	1001	1006	1015	1013	1010	1005	996	983	971	977	984	983	1000	1018	1026	1018	1020	977	987	972	965	996
26 *d*	923	849	893	965	993	1008	1004	1007	1009	1007	1003	992	993	1001	1010	1051	1100	1053	1036	1012	1011	1024	1002	997	999
27	1000	1001	1004	1007	1002	1005	1003	1007	1000	1002	1001	1000	991	995	1001	1028	1039	1031	1029	1020	1013	1010	1006	1001	1008
28 *q*	1001	1006	1004	1004	1008	1008	1005	1001	996	984	978	982	980	982	989	1007	1008	1001	1001	1000	998	1001	1001	1001	998
29 *q*	999	1000	1001	1000	995	995	996	996	1002	1002	996	982	971	971	980	982	991	1007	1018	1016	1012	1006	1003	1002	997
30	1004	1003	1002	1005	1003	1004	1007	1005	1002									1047	1046	1031	1017	1014	1008	1004	
Mean	989	981	*979*	982	987	996	997	1001	1001	1000	998	994	993	999	1003	1011	1022	*1026*	1025	1021	1016	1012	1005	996	1001

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

32 LERWICK — JUNE

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination			Vertical force							
	Maximum 14,000γ +		Minimum 14,000γ +		Range	Maximum 11° +	Minimum 11° +	Range	Maximum 46,000γ +		Minimum 46,000γ +		Range			
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ				°A.
1 *d*	15 46	*552*	*134*	1 51	*418*	15 36	*17·6*	*-26·6*	2 0	*44·2*	16 4	1115	*765*	3 41	*350*	5,5,4,3,4,4,4,2	31	1	84·1
2	20 31	402	310	6 30	92	14 6	9·6	-5·8	8 37	15·4	16 57	1024	937	23 29	87	1,3,3,2,1,2,1,3	16	1	84·2
3	16 55	438	330	10 36	108	14 26	10·4	-8·6	4 39	19·0	17 21	1035	945	0 1	90	2,2,1,2,3,3,2,1	16	0	85·0
4 *q*	18 0	432	307	10 48	125	12 33	12·0	-8·8	5 44	20·8	18 26	1025	984	12 27	41	2,1,2,1,2,3,2,2	15	0	84·8
5	19 20	430	293	10 44	137	13 11	12·4	-7·0	6 10	19·4	16 54	1047	969	12 30	78	2,2,2,2,3,3,2,2	18	1	87·5
6	18 50	439	311	11 26	128	13 48	12·2	-7·4	16 3	19·6	15 12	1024	993	12 0	31	1,2,2,2,2,2,2,1	14	0	88·2
7	16 25	433	326	10 46	107	16 23	10·9	-9·4	7 33	20·3	19 15	1029	983	11 28	46	2,1,1,2,3,3,2,2	16	1	88·8
8	19 25	446	304	11 10	142	16 15	13·3	-12·3	7 25	25·6	20 55	1036	985	23 59	51	2,2,1,3,3,3,2,3	19	1	88·6
9	18 37	434	327	0 58	107	14 36	10·4	-9·2	7 3	19·6	16 35	1043	898	0 52	145	3,3,2,2,2,3,2,2	19	1	89·3
10	18 48	419	317	11 10	102	14 21	9·5	-7·0	5 29	16·5	19 45	1022	990	0 59	32	2,2,1,2,2,1,1,1	12	1	89·2
11	19 33	461	331	11 15	130	13 49	12·6	-6·5	7 10	19·1	20 16	1023	993	11 55	30	1,2,1,1,1,2,3,1	12	1	89·5
12	19 45	440	317	10 18	123	13 14	9·7	-11·5	7 44	21·2	20 38	1028	975	12 24	53	2,3,2,2,2,2,2,3	18	0	89·4
13	18 47	461	329	10 18	132	0 59	9·7	-7·6	7 35	17·3	17 3	1045	931	1 9	114	3,2,2,2,2,3,3,2	19	1	89·5
14	16 37	459	319	11 15	140	13 19	10·0	-8·3	7 35	18·3	18 21	1045	983	12 20	62	1,1,2,1,2,3,2,1	13	0	89·2
15 *q*	17 24	406	343	10 10	*63*	13 53	6·9	-6·0	7 25	*12·9*	19 1	1020	997	5 57	23	1,1,1,2,1,2,1,0	9	0	88·7
16 *q*	22 23	413	346	11 18	67	14 30	8·2	-4·9	5 44	13·1	19 54	1010	992	8 46	*18*	0,0,1,1,1,1,1,1	6	0	88·6
17	18 42	481	338	11 33	143	14 21	11·4	-10·4	6 25	21·8	19 49	1063	983	12 22	80	2,2,2,2,2,3,3,3	19	1	89·0
18 *d*	19 4	461	297	10 40	164	15 6	15·3	-14·5	5 38	29·8	17 0	1072	961	3 5	111	3,2,2,3,3,3,3,3	22	1	88·5
19 *d*	20 59	409	284	1 41	125	12 47	11·5	-24·7	1 49	36·2	13 15	1051	885	3 7	166	4,3,3,3,3,2,3,2	23	1	88·7
20	17 19	450	319	9 37	131	15 50	17·2	-14·0	5 43	31·2	18 42	1044	937	1 55	107	3,2,2,3,2,3,3,3	21	1	89·0
21 *d*	18 7	524	223	23 43	301	12 51	15·9	-16·0	6 28	31·9	18 0	1083	796	23 45	287	3,3,2,3,3,5,4,5	28	1	89·0
22	20 8	413	218	2 46	195	12 21	9·7	-16·1	0 19	25·8	14 27	1018	838	2 50	180	5,4,3,2,2,2,1,2	21	1	89·0
23	19 56	430	312	10 22	118	13 30	14·5	-10·7	8 4	25·2	20 49	1021	983	13 32	38	1,1,2,2,3,2,2,2	15	0	89·0
24	20 40	420*	342*	8 59	78	14 12	16·8	-12·4	6 41	29·2	7 59	1014	984	13 19	30	2,2,2,1,0,0,1,2	10	1	89·0
25	20 17	478	332	10 36	146	13 27	15·9	-18·4	22 27	34·3	17 40	1027	954	20 43	73	2,2,1,2,3,3,3,4	20	1	89·0
26 *d*	15 34	536	300	0 54	236	0 29	11·6	-8·4	2 46	20·0	16 15	*1121*	832	1 40	289	4,3,2,3,3,5,3,3	26	1	89·0
27	17 17	438	308	11 30	130	13 18	9·7	-14·4	7 22	24·1	16 6	1045	987	12 22	58	2,2,3,3,3,3,2,1	19	1	89·0
28 *q*	19 59	405	337	8 48	68	12 46	8·6	-8·4	8 21	17·0	15 55	1012	975	10 40	37	0,2,1,2,2,2,1,1	11	0	88·2
29 *q*	17 46	416	310	10 56	106	13 36	9·7	-8·9	8 4	18·6	18 52	1022	968	13 5	54	0,1,2,2,2,2.1,1	11	0	89·0
30	16 0	437	354	8 44	83	14 16	13·5	-8·9	5 50	22·4	17 42	1056	1001	8 59	55	1,1,2,0,0,1,2,1	8	0	89·0
Mean	- -	445	307	- -	138	- -	11·9	-11·1	- -	23·0	- -	1041	947	- -	94	-	-	0·63	88·3

* Record lost 9h.-12h. maximum and minimum values obtained from incomplete trace.

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

33 LERWICK (H) — 14,000γ (0·14 C.G.S. unit) + — JULY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	388	373	356	367	378	379	376	372	358	349	345	347	346	352	366	395	415	432	441	431	412	396	382	372	380
2	370	374	372	369	372	379	382	373	355	339	328	334	354	374	364	375	388	406	425	440	425	406	384	376	378
3	374	383	392	394	393	384	372	360	353	344	328	327	351	380	418	419	415	420	412	406	397	398	400	398	384
4 *d*	385	384	378	393	391	391	380	350	322	337	341	358	375	370	378	399	412	437	430	434	432	408	389	258	381
5	275	350	375	387	387	390	381	365	353	342	333	337	365	366	372	406	423	408	393	396	400	399	397	328	372
6	322	367	385	393	397	391	365	350	330	343	351	356	349	363	368	402	424	415	427	406	398	389	385	384	377
7	383	376	380	384	381	385	376	370	361	347	346	347	351	366	381	423	426	419	426	403	403	395	388	389	384
8	390	377	366	378	388	377	359	348	344	329	336	336	328	354	378	407	428	452	425	406	391	388	385	380	377
9	377	374	372	373	377	380	376	362	351	340	328	323	336	343	363	392	398	398	394	412	406	413	402	387	374
10	387	384	385	392	392	380	369	374	354	333	341	331	339	377	380	386	422	453	450	432	417	404	395	393	*386*
11	388	384	384	389	390	385	377	365	356	337	330	334	356	372	380	394	414	417	438	438	421	402	379	362	383
12	359	362	369	373	387	382	370	354	344	337	330	341	336	367	362	379	384	398	399	400	405	394	393	389	371
13	387	384	376	372	362	366	375	366	350	347	345	351	359	350	380	398	398	393	409	410	417	407	393	395	379
14 *d*	381	326	367	380	387	384	365	360	362	347	328	323	323	354	391	389	388	391	405	416	405	403	383	370	372
15	370	374	378	387	388	377	358	342	327	323	326	325	348	354	376	393	389	401	398	408	419	412	398	377	373
16	370	380	388	392	391	367	358	358	344	350	344	341	359	358	337	379	395	426	418	414	407	405	392	388	378
17	386	384	360	367	368	358	348	336	318	310	320	333	343	353	369	387	377	401	441	441	404	388	384	379	369
18	380	379	369	367	372	371	358	344	333	337	324	354	365	365	376	371	398	415	417	416	409	396	389	384	375
19 *q*	380	374	384	380	376	374	367	350	333	322	322	329	339	353	358	367	374	389	394	398	400	398	395	395	369
20 *q*	391	383	387	384	383	381	376	361	338	315	311	322	342	360	380	392	398	420	427	430	415	406	396	380	378
21	380	383	386	393	391	382	368	354	341	327	332	340	347	369	371	383	393	409	425	435	439	406	387	380	380
22 *q*	383	387	383	383	381	385	369	361	351	331	327	335	340	356	376	397	402	413	415	412	409	402	395	396	379
23 *q*	395	389	389	387	387	382	370	356	333	316	320	327	353	382	392	396	387	390	401	406	406	405	398	396	378
24 *q*	381	378	384	372	389	396	388	369	353	332	322	332	350	370	385	391	398	396	400	405	405	400	401	398	379
25	392	393	392	390	391	387	378	369	360	348	336	334	357	371	377	390	391	414	398	401	396	392	392	392	381
26	387	383	385	384	383	385	378	365	348	347	336	337	344	369	388	395	379	407	415	419	410	402	391	376	380
27	380	383	381	383	372	372	380	352	343	342	332	334	340	348	359	386	394	414	419	406	399	389	386	389	374
28	381	377	377	374	372	365	358	360	353	347	343	347	351	359	365	369	363	422	421	414	410	404	391	376	375
29 *d*	364	370	383	366	342	363	348	334	341	322	304	313	291	348	374	396	419	419	413	410	395	388	384	381	*365*
30 *d*	383	381	372	376	383	376	349	348	344	348	337	339	343	366	366	362	387	397	412	453	440	409	401	339	375
31 *d*	325	304	264	359	337	372	378	346	331	333	349	344	365	383	397	425	447	455	432	415	405	385	385	374	371
Mean	374	374	375	380	380	379	369	357	345	336	*332*	337	347	369	375	392	401	414	413	*417*	410	400	391	377	377

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

34 LERWICK (D) — 11° + — JULY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	4·9	3·2	-0·7	-7·2	-4·4	-4·9	-7·4	-8·8	-8·6	-4·9	-1·0	3·2	7·8	9·3	8·4	7·8	6·8	5·3	4·0	5·1	4·5	4·3	2·1	-1·2	1·1
2	-1·7	-3·0	-5·0	-7·7	-9·6	-9·9	-7·3	-6·5	-5·3	-3·0	1·9	5·7	7·5	10·7	10·2	9·5	7·0	6·0	5·3	3·6	6·8	7·1	4·3	0·9	1·1
3	-2·9	-4·6	-5·3	-5·2	-5·6	-10·3	-10·6	-9·5	-5·9	-1·6	0·3	5·8	10·2	15·1	15·2	9·6	9·8	8·4	7·4	6·3	5·6	5·0	4·2	2·2	1·8
4 *d*	2·7	-0·7	-1·8	-3·8	-5·7	-6·4	-6·3	-7·7	-3·2	1·7	3·2	7·1	9·8	7·0	6·8	6·6	4·6	6·7	2·1	5·7	3·1	-3·6	2·2	-4·7	1·1
5	-7·4	-13·5	-10·2	-4·8	-6·1	-5·4	-6·3	-7·1	-6·8	-4·4	-0·4	4·9	7·9	8·8	11·4	10·2	6·7	6·0	4·1	4·1	3·5	3·9	3·6	4·8	0·3
6	0·2	-6·0	-5·4	-4·6	-5·3	-6·2	-8·2	-8·1	-6·1	-3·6	-3·5	-0·7	2·9	5·9	6·0	4·9	5·2	4·6	3·8	2·9	2·7	2·1	1·2	0·7	*-0·6*
7	-0·5	-1·2	-2·1	-4·5	-4·5	-6·2	-8·3	-8·2	-6·4	-3·5	0·4	2·8	7·1	8·8	8·9	8·3	7·5	4·2	4·0	3·5	3·1	2·6	2·2	2·1	0·8
8	3·2	-0·8	-3·8	-7·1	-6·4	-4·3	-1·4	-0·6	-1·4	-0·7	-0·8	3·1	8·1	10·4	10·3	9·5	5·3	1·2	0·2	1·3	2·2	2·3	1·2	1·2	1·3
9	0·3	-0·1	-2·0	-4·3	-6·3	-7·3	-9·0	-9·1	-8·9	-6·2	-1·5	2·7	9·8	9·7	11·3	9·0	5·6	3·3	1·8	1·2	2·3	2·8	2·9	2·8	0·5
10	3·1	2·8	1·4	-0·6	0·5	1·2	-0·2	-3·1	-4·5	-1·5	1·2	6·2	10·0	10·9	8·7	9·4	7·8	4·4	0·2	3·1	3·3	4·0	2·7	1·5	3·0
11	0·9	-0·5	-2·0	-3·4	-5·7	-7·0	-7·3	-7·8	-6·9	-4·1	-1·5	3·2	6·5	9·9	10·9	10·0	8·1	5·6	3·8	5·2	4·2	2·1	-0·6	-5·8	0·7
12	-1·5	-2·6	-4·7	-7·0	-6·4	-5·5	-7·3	-7·3	-6·7	-5·4	-2·5	1·2	4·8	7·6	8·1	8·8	7·1	4·1	2·4	1·4	3·1	4·4	4·3	3·3	0·2
13	3·7	1·3	0·3	0·4	1·2	-0·1	-3·7	-7·2	-7·0	-4·3	-0·7	3·7	4·6	5·1	6·7	7·1	5·3	5·0	5·0	3·3	3·1	6·5	5·4	5·6	2·1
14 *d*	6·6	-2·4	-13·4	-9·3	-6·8	-9·1	-9·9	-7·2	-6·7	-4·5	-0·7	4·2	7·8	8·4	7·1	5·0	5·0	5·7	5·2	5·0	4·7	2·7	3·1	2·7	0·1
15	-1·3	-5·2	-5·5	-4·9	-4·9	-7·4	-9·3	-8·7	-5·8	-2·4	0·4	4·4	7·6	8·4	8·0	4·4	6·0	5·9	5·1	5·1	3·3	5·6	5·9	1·7	0·7
16	1·0	-0·9	-3·8	-3·0	-4·6	-7·9	-9·0	-9·6	-10·9	-2·8	-2·4	2·3	8·6	10·8	9·4	9·0	4·3	2·9	3·9	4·1	4·5	5·7	2·5	1·9	0·7
17	1·0	1·0	-0·9	-9·8	-6·4	-9·4	-6·7	-8·0	-7·1	-1·4	1·0	5·0	7·9	8·6	7·0	6·6	5·2	6·6	6·8	1·4	5·0	5·1	4·1	2·4	1·0
18	0·4	-1·4	-2·0	-3·4	-8·4	-7·5	-8·5	-9·0	-6·3	-1·3	2·3	5·8	9·5	8·9	8·7	5·8	6·2	6·7	4·2	2·9	3·9	4·0	3·6	2·7	1·2
19 *q*	0·8	-1·5	-4·8	-5·3	-6·5	-8·6	-10·4	-10·4	-9·0	-5·0	0·8	6·3	9·9	9·8	6·3	4·7	3·7	3·4	2·5	2·7	2·6	2·4	1·9	1·5	-0·1
20 *q*	-0·7	-0·5	-5·0	-3·4	-3·6	-5·8	-7·9	-8·2	-7·1	-3·3	1·5	7·7	12·0	12·6	9·8	7·0	5·8	5·4	4·6	5·6	4·4	4·5	3·7	2·4	1·7
21	-0·2	-4·4	-5·4	-4·5	-5·6	-8·0	-10·1	-8·6	-7·2	-1·2	1·6	6·6	10·1	10·4	7·9	5·4	4·8	5·5	4·9	4·9	-0·5	-1·5	0·5	-0·6	0·2
22 *q*	-1·3	-2·8	-1·9	-0·2	-3·4	-7·0	-6·4	-4·3	-3·8	-3·5	0·4	5·8	9·0	11·0	10·0	6·6	3·4	2·5	1·5	2·2	2·5	3·8	4·1	3·8	1·3
23 *q*	3·3	1·4	1·0	-1·9	-5·3	-9·1	-10·8	-10·7	-9·5	-2·9	1·8	5·5	8·2	7·3	5·6	5·8	3·8	4·0	4·3	5·1	5·2	4·2	4·3	5·1	1·1
24 *q*	1·7	1·4	-0·6	1·0	-4·0	-8·6	-8·6	-7·6	-5·7	-3·0	2·3	7·1	10·9	10·1	8·1	4·8	1·3	0·2	1·3	2·5	3·8	3·2	2·4	3·2	1·1
25	2·4	1·4	3·3	-1·8	-6·4	-6·2	-7·0	-7·0	-6·6	-1·4	2·5	8·8	10·9	7·0	6·6	3·1	2·4	3·9	2·7	3·7	4·0	3·8	4·8	5·2	1·7
26	1·2	-1·5	-1·4	-2·0	-1·4	-3·8	-3·9	-3·3	-4·8	-4·8	-1·4	2·0	5·6	6·6	7·3	7·0	2·9	4·7	4·3	3·7	4·3	5·9	0·6	-0·1	1·2
27	-1·0	-2·8	-3·8	-4·8	-6·2	-7·0	-9·9	-8·3	-6·4	-3·1	1·8	6·4	8·5	8·5	9·3	9·4	7·0	5·3	5·3	3·8	3·7	2·6	1·9	-0·1	0·8
28	-1·9	-2·8	-2·4	-3·4	-4·8	-6·7	-6·6	-6·1	-4·4	-1·6	1·5	5·1	7·8	8·5	6·2	4·8	4·2	5·8	4·3	4·5	4·2	4·1	1·0	-1·4	0·8
29 *d*	-6·0	-4·1	-1·0	0·4	2·7	3·8	-1·8	3·8	2·2	0·4	0·2	7·6	15·1	16·8	15·2	8·0	6·7	7·0	5·9	6·6	6·6	5·1	2·1	0·4	*4·3*
30 *d*	-0·2	0·5	3·8	2·3	-1·5	-4·1	-0·1	-1·4	-1·4	-2·2	-0·8	1·8	5·2	7·1	6·8	6·4	5·7	5·4	4·1	3·4	-7·2	3·0	3·2	2·9	1·8
31 *d*	0·3	-9·9	-12·4	-1·3	1·2	-3·4	-6·1	1·4	-0·3	3·0	1·9	1·9	6·6	8·1	8·1	5·1	4·1	2·3	1·4	1·6	5·2	6·0	4·6	5·3	1·4
Mean	0·4	-1·9	-3·1	-3·7	-4·5	-6·1	-7·0	-6·6	-5·8	-2·7	0·3	4·6	8·1	*9·1*	8·7	7·1	5·5	4·8	3·7	3·7	3·5	3·7	2·9	1·7	1·1

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

35 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — JULY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	1003	1000	981	952	958	964	976	985	993	994	990	989	995	989	989	989	994	1006	1015	1022	1023	1020	1018	1018	994
2	1011	998	981	984	993	996	996	998	1001	1001	1000	993	990	994	998	999	1007	1008	1007	1018	1020	1014	1012	1015	1001
3	1015	1012	1007	1006	1007	1009	1008	1002	995	990	989	984	985	992	1002	1034	1050	1042	1032	1016	1008	1003	1002	1000	1008
4 *d*	999	1003	1001	996	1002	1000	998	1002	1007	995	987	982	982	984	995	1010	1023	1036	1045	1021	988	978	997	886	997
5	1092	882	931	979	993	1001	1004	1008	1007	1000	1001	996	990	1004	1003	1009	1034	1033	1015	997	993	995	988	920	995
6	899	958	989	1002	1008	1008	1009	1001	1001	989	992	996	996	1002	1008	1013	1015	1007	999	1007	1001	998	999	998	996
7	1000	1001	1001	1003	1003	1001	998	990	986	978	979	982	987	984	989	998	1018	1026	1021	1019	1010	1008	1002	1000	999
8	989	979	960	960	973	982	985	984	990	992	995	1001	1003	1009	1018	1026	1044	1050	1045	1024	1014	1007	1003	1000	1001
9	1000	1001	1002	1003	1003	1003	1001	1001	996	990	992	995	994	992	990	997	1018	1026	1026	1014	1008	1001	987	993	1001
10	995	992	1001	1003	1002	1001	990	984	989	989	985	993	994	1002	1037	1046	1056	1064	1063	1042	1022	1009	1004	1001	*1011*
11	1000	1000	1001	1001	1003	1003	1007	1003	1000	991	990	988	984	989	993	1000	1004	1013	1017	1023	1026	1018	1000	981	1001
12	965	954	946	941	946	965	984	1002	1008	1003	1002	998	1000	997	1001	996	995	997	1011	1013	1016	1010	1004	1001	990
13	995	984	992	983	983	971	980	990	992	988	986	988	1002	1009	995	995	1004	1008	1007	1009	1012	1009	1008	1002	995
14 *d*	982	898	931	950	964	976	988	992	992	998	1001	995	994	992	1002	1039	1035	1013	998	1001	1008	1005	984	988	*989*
15	967	959	964	965	976	989	995	992	989	987	982	978	990	1000	1001	1017	1023	1020	1015	1006	1003	997	970	965	990
16	954	959	982	992	990	989	988	985	995	993	998	998	1004	1016	1012	1001	1019	1025	1015	1008	1004	996	995	997	996
17	996	987	945	923	938	972	980	989	996	1001	1003	998	1000	1005	1001	1002	1018	1013	1008	1016	1007	1006	1006	1007	992
18	1007	1004	1002	978	969	985	998	1002	995	984	983	987	990	995	995	1008	1005	1000	1004	1008	1009	1003	1000	1001	996
19 *q*	992	970	961	979	988	995	1001	997	992	987	983	983	986	986	990	993	1001	998	998	1000	997	995	997	998	990
20 *q*	992	992	979	989	993	995	996	995	997	990	982	972	976	979	984	990	993	989	996	1001	1006	1001	992	988	990
21	953	964	986	997	1001	1005	1007	1003	999	992	989	979	978	983	990	993	995	996	1002	1001	1015	1011	997	992	993
22 *q*	990	986	983	983	990	993	1003	997	995	996	991	989	993	994	993	995	1002	1006	1012	1014	1009	1003	998	995	996
23 *q*	991	998	1001	1001	1000	1007	1008	1001	997	995	987	982	983	995	1007	1007	1014	1007	1001	997	996	1000	1001	989	999
24 *q*	987	982	987	982	976	986	995	1005	1007	1002	993	986	982	983	990	999	1001	1011	1008	1002	1000	1002	1000	996	994
25	998	999	997	993	1001	1001	996	994	993	989	982	976	974	989	1005	1020	1031	1030	1038	1026	1014	1008	1001	993	1002
26	996	1000	998	1002	997	991	993	995	996	986	983	985	988	994	996	1010	1023	1014	1015	1016	1011	1002	998	1000	1000
27	996	998	1002	998	1002	996	995	987	984	985	983	973	973	980	982	983	996	1003	1009	1013	1008	1002	1002	998	994
28	999	998	999	998	998	999	998	996	994	993	988	980	983	973	974	981	986	989	1002	1002	999	997	999	995	993
29 *d*	979	991	991	985	960	941	960	972	979	996	1010	1012	1019	1019	1027	1053	1050	1052	1045	1030	1021	1013	1012	1010	1005
30 *d*	1009	1008	996	971	974	991	989	979	988	996	996	995	996	996	1025	1029	1027	1022	1013	1016	1058	1029	1012	971	1004
31 *d*	889	877	828	922	917	927	980	997	1002	998	1007	1040	1043	1035	1026	1063	1071	1101	1083	1055	1034	1028	1020	1002	998
Mean	988	979	*978*	981	984	989	993	995	995	993	992	990	992	995	1001	1009	1018	*1019*	1018	1014	1011	1003	1000	990	997

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

36 LERWICK — JULY

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination			Vertical force							
	Maximum 14,000γ +		Minimum 14,000γ +		Range	Maximum 11° +	Minimum 11° +	Range	Maximum 46,000γ +		Minimum 46,000γ +		Range			
	h. m.	γ	γ	h. m.	γ	h. m. ′	′ h. m.	′	h. m.	γ	γ	h. m.	γ			°A.
1	18 41	448	338	12 58	110	13 5 9·8	-10·1 6 36	19·9	20 40	1025	1008	3 26	*17*	3,2,2,1,2,2,3,2	17	1	88·9
2	19 37	448	323	10 47	125	13 50 11·8	-11·5 5 28	23·3	20 0	1025	977	3 0	48	2,2,1,1,2,2,2,2	14	0	88·7
3	15 5	445	315	11 6	130	14 18 16·8	-9·5 6 52	26·3	16 40	1050	982	11 49	68	2,2,2,2,3,3,2,2	18	1	88·9
4 *d*	20 41	451	*80*	23 48	371	12 23 12·2	-23·1 23 52	35·3	18 12	1055	746	23 59	309	2,1,3,3,3,3,4,6	25	1	88·7
5	16 35	442	124	0 1	318	23 30 18·3	-17·0 2 0	35·3	16 8	1048	*734*	0 1	314	6,3,2,1,2,3,2,5	24	1	89·0
6	18 27	435	301	0 1	134	13 38 7·0	-12·0 7 52	19·0	16 8	1022	857	0 1	165	5,1,3,3,2,3,2,1	20	1	88·5
7	18 31	446	341	11 32	105	14 0 9·8	-11·4 6 29	21·2	17 43	1031	976	9 25	55	1,1,2,1,2,3,3,1	14	1	88·6
8	17 30	458	319	8 20	139	13 30 11·3	-8·1 3 45	19·4	16 47	1056	953	3 17	103	3,2,2,2,2,3,3,1	18	1	88·8
9	22 1	424	309	1 54	115	14 11 12·3	-10·2 7 0	22·5	18 4	1031	982	22 19	49	1,1,1,2,2,2,2,2	13	0	88·6
10	18 18	469	313	11 39	156	12 18 12·7	-6·5 8 22	19·2	17 50	1072	978	17 40	94	1,2,2,3,3,3,3,1	18	1	88·6
11	18 30	446	322	10 25	124	14 16 11·7	-9·6 7 39	21·3	20 41	1028	984	12 31	44	1,1,1,1,2,2,2,3	13	0	88·5
12	18 5	412	323	12 27	89	15 34 9·3	-10·0 3 38	19·3	19 50	1022	939	3 6	83	2,2,2,1,3,2,2,1	15	0	88·9
13	19 48	427	335	11 10	92	15 23 7·9	-9·7 8 8	17·6	13 7	1015	970	5 32	45	2,2,2,2,2,2,2,2	16	0	89·0
14 *d*	19 27	426	285	1 24	141	1 6 10·4	-15·7 2 39	26·1	15 50	1051	854	1 29	197	5,3,2,2,3,3,2,3	23	1	89·1
15	20 7	429	319	9 30	110	14 27 9·6	-11·8 6 33	21·4	16 50	1026	957	1 5	69	2,2,2,2,2,2,2,3	17	1	89·3
16	17 50	438	314	14 15	124	13 29 12·4	-13·5 8 40	25·9	13 51	1027	945	1 7	82	3,3,2,2,3,3,2,2	20	1	89·3
17	18 41	453	305	9 45	148	13 15 8·9	-13·3 4 30	22·2	19 12	1023	919	3 16	104	4,3,2,2,2,3,3,1	20	1	88·3
18	18 48	424	327	8 46	97	12 33 10·6	-10·1 7 25	20·7	15 44	1015	964	4 16	51	2,2,1,2,2,3,2,1	15	0	88·5
19 *q*	21 1	402	318	10 14	*84*	12 43 10·7	-11·6 7 15	22·3	20 38	1001	970	11 26	31	3,2,2,2,1,1,1,1	13	0	89·3
20 *q*	19 0	434	308	10 4	126	13 16 13·8	-8·8 7 37	22·6	20 38	1007	970	11 26	37	2,1,2,2,2,2,2,2	15	0	89·2
21	20 17	460	322	9 56	138	13 16 11·8	-10·9 6 49	22·7	21 3	1024	943	0 37	81	3,1,2,2,2,2,3,3	18	1	89·1
22 *q*	17 51	419	323	9 59	96	13 53 11·6	-8·5 5 48	20·1	18 46	1014	979	2 23	35	2,2,2,2,2,1,0,1	22	0	89·2
23 *q*	19 20	409	313	9 29	96	12 56 9·0	-11·3 6 51	20·3	16 30	1017	982	11 29	35	1,2,2,2,2,2,1,1	13	0	89·1
24 *q*	20 4	409	318	10 27	91	12 37 11·3	-9·7 5 52	21·0	17 39	1012	972	4 20	40	1,3,2,2,1,1,1,1	12	0	88·6
25	17 42	425	316	11 3	109	12 20 12·2	-9·3 8 11	21·5	18 36	1040	967	12 9	73	1,2,1,2,3,2,2,2	15	0	88·5
26	18 31	430	331	11 9	99	14 51 8·5	-6·2 8 50	*14·7*	16 3	1027	983	10 36	44	2,1,2,1,3,3,2,2	16	0	89·0
27	18 2	428	328	10 40	100	15 17 10·5	-12·4 6 26	22·9	19 6	1016	971	11 46	45	1,2,2,1,1,2,2,2	13	0	89·3
28	17 38	460	340	10 43	120	13 15 9·1	-7·4 6 40	16·5	19 14	1009	971	14 0	38	1,1,2,1,1,3,3,2	14	0	89·0
29 *d*	16 58	435	282	12 15	153	14 6 *18·0*	-9·5 0 50	27·5	15 48	1063	940	5 55	123	3,3,3,2,3,3,3,2	22	1	89·0
30 *d*	19 40	463	326	23 57	137	13 49 8·5	-15·8 20 27	24·3	20 25	1075	899	23 59	176	2,2,2,2,3,3,4,5	23	1	89·0
31 *d*	15 5	*496*	124	2 27	*372*	14 56 11·4	*-31·7* 2 28	*43·1*	17 53	*1116*	771	2 25	*345*	5,4,3,3,4,4,3,2	28	1	89·0
Mean	- -	438	298	- -	140	- - 11·3	-11·8 - -	23·1	- -	1034	938	- -	97	-	-	0·52	88·9

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

37 LERWICK (H) — 14,000γ (0·14 C.G.S. unit) + — AUGUST

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	363	367	373	375	369	373	366	346	326	331	318	344	350	369	382	384	389	387	404	419	408	389	344	360	368
2	355	360	369	379	380	375	322	339	351	330	312	333	382	369	387	384	389	389	383	394	399	391	383	383	368
3	383	377	379	377	373	375	370	350	347	354	339	353	354	376	398	374	391	416	418	406	405	387	382	380	378
4	376	378	368	368	382	383	379	369	352	341	308	333	314	362	416	400	402	445	464	444	403	388	377	379	380
5	377	368	365	353	355	375	369	359	343	334	331	328	341	357	368	379	383	394	396	392	391	385	383	384	367
6	383	383	381	379	371	365	366	364	350	333	325	338	344	376	429	448	372	376	385	389	389	389	387	386	375
7	386	385	386	391	408	395	377	374	368	346	338	350	368	367	350	390	397	397	397	399	401	404	397	413	*383*
8 *d*	349	271	302	373	114	139	-167	-254	-36	233	305	394	480	808	704	763	479	394	385	369	102	-336	-35	-221	*246*
9 *d*	-79	96	78	152	152	305	337	319	306	306	295	297	318	381	342	378	418	458	468	446	424	270	42	142	277
10 *d*	223	110	281	327	343	298	231	66	162	283	330	321	361	356	400	512	571	625	626	533	390	384	348	343	351
11 *d*	322	315	329	333	338	300	324	319	328	330	342	336	325	324	350	368	366	389	417	411	396	375	375	364	349
12	356	313	332	355	354	336	304	269	304	327	322	350	362	368	408	407	416	454	440	419	345	362	350	295	356
13	291	313	358	302	269	302	342	332	324	321	317	327	335	346	367	359	360	362	387	391	382	374	370	364	341
14	360	364	363	358	361	357	350	344	339	330	324	349	333	340	368	414	436	426	410	412	392	375	373	375	369
15	361	356	364	371	367	359	349	342	337	327	321	317	333	357	370	393	387	396	395	392	388	375	375	365	362
16 *q*	363	360	358	361	361	356	348	342	334	329	330	330	338	348	356	367	373	375	380	383	381	380	377	377	359
17 *q*	374	370	373	375	374	370	361	355	347	338	338	338	345	352	364	364	386	399	397	387	385	385	380	370	368
18 *q*	368	371	376	378	374	366	359	346	335	331	331	345	347	357	366	375	385	394	400	399	390	381	382	383	368
19	378	374	372	372	370	365	358	350	338	324	317	321	331	341	351	358	377	386	393	413	426	428	425	402	370
20 *d*	270	222	213	234	258	338	347	360	349	324	323	326	363	413	375	371	378	377	376	389	397	377	373	370	338
21	353	349	359	342	354	363	364	363	345	330	315	312	354	395	407	453	399	362	367	375	378	374	371	363	364
22	364	363	363	364	354	349	353	348	337	316	322	328	330	344	352	357	380	388	386	395	389	394	358	358	358
23	372	382	310	293	366	369	363	351	341	333	333	342	347	363	376	373	376	385	388	397	389	384	380	381	362
24	374	378	380	377	368	353	353	346	329	330	328	341	348	352	369	379	402	380	391	397	392	380	374	369	366
25	370	370	373	361	374	371	364	357	346	334	327	325	330	351	362	364	377	384	388	402	402	375	366	367	364
26 *q*	370	371	371	373	373	370	361	356	350	342	334	333	342	349	359	376	379	389	397	391	384	383	383	383	367
27 *q*	381	380	380	378	375	373	370	365	357	347	338	339	341	349	369	377	390	377	386	392	398	394	382	376	371
28	380	381	384	386	387	384	376	368	351	337	333	338	340	351	376	361	412	404	396	405	396	373	341	353	371
29	361	345	338	366	384	384	367	358	344	318	333	361	362	368	399	431	486	437	420	427	383	373	370	354	378
30	328	344	315	360	348	316	345	338	325	313	317	341	345	342	342	355	367	388	392	395	384	362	360	359	349
31	373	371	370	373	369	359	359	349	338	331	329	335	340	362	367	358	364	382	394	393	389	384	387	381	365
Mean	341	338	344	351	346	349	334	*319*	321	326	325	336	349	374	385	399	400	404	*407*	405	383	356	350	344	358

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

38 LERWICK (D) — 11° + — AUGUST

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	1·0	-1·0	1·6	-3·2	1·4	-4·4	-3·8	-4·6	-1·4	-2·8	2·3	7·3	6·8	5·4	4·1	2·5	1·5	1·2	2·1	1·4	4·8	2·4	-2·5	-2·6	0·8
2	1·7	1·3	0·0	-4·3	-5·1	-5·3	3·6	3·3	-2·3	-0·4	3·5	5·2	8·0	5·6	3·1	4·0	1·9	2·1	2·8	3·8	3·2	2·0	3·5	2·6	1·8
3	2·0	0·3	-1·8	-1·3	-2·9	-2·2	-0·7	0·0	1·4	-0·6	4·2	5·9	7·5	7·6	5·4	2·0	0·6	-0·4	1·1	2·5	3·4	1·1	2·0	2·9	1·7
4	1·4	2·3	4·7	-3·4	-5·2	-6·0	-6·6	-6·0	-2·5	-2·7	-3·4	4·3	12·4	8·9	8·1	4·8	2·3	1·3	2·5	1·4	2·5	3·5	3·1	0·5	1·2
5	0·6	1·0	0·7	-0·4	-2·4	-7·2	-9·6	-8·9	-7·1	-2·8	1·6	4·5	5·6	7·0	5·6	3·2	1·4	1·9	2·4	1·8	1·0	0·5	0·1	0·2	0·0
6	0·3	-0·3	-1·0	-1·6	-4·4	-5·5	-3·8	-4·7	-3·3	-0·1	2·8	8·5	11·0	11·6	9·5	8·4	5·1	4·1	2·8	2·8	2·6	2·8	2·5	1·5	2·1
7	1·3	0·7	-0·1	1·5	2·3	0·4	3·0	1·8	-0·6	1·4	4·2	6·5	8·9	8·1	4·6	1·5	-1·0	-1·3	-0·6	0·3	0·8	3·3	4·4	5·1	2·4
8 *d*	7·7	-3·7	-9·0	-0·5	8·5	4·3	-6·4	-11·9	-26·1	-15·1	-3·2	2·2	4·7	1·0	6·0	15·1	1·6	3·6	6·5	7·9	20·2	-9·5	-30·1	-23·4	-2·1
9 *d*	-23·7	-21·8	-35·2	-32·4	-12·5	-13·5	-10·1	-12·0	-10·5	-8·2	-1·9	5·6	8·1	9·7	12·1	12·7	12·4	0·4	6·2	5·4	4·5	-4·5	7·9	9·7	*-3·8*
10 *d*	-7·8	-2·8	-11·0	-10·4	-7·8	-2·3	-7·8	23·7	-4·6	3·3	0·2	5·1	7·1	9·5	10·8	16·7	10·2	16·2	23·7	11·9	7·6	8·3	3·8	-3·8	*4·2*
11 *d*	-2·8	-1·9	-3·0	-4·8	-6·2	-7·9	-5·8	-8·1	-5·9	-4·3	-2·1	4·0	6·6	4·7	4·3	3·3	3·2	3·4	3·1	0·5	0·0	3·1	4·8	-1·2	-0·5
12	-0·7	-5·4	-6·0	-1·9	-0·6	-1·0	2·9	-7·5	-4·3	-1·3	-0·2	6·5	6·3	6·7	8·6	6·3	3·5	4·2	2·0	3·6	5·6	-0·3	-4·4	-6·8	0·7
13	-13·8	-12·5	-1·9	-4·2	-1·9	-3·0	-9·3	-9·0	-9·0	-5·3	-2·0	1·9	4·9	4·7	5·6	3·1	1·3	0·6	0·5	0·5	1·0	0·1	-1·3	-1·4	-2·1
14	-2·5	-3·1	-3·3	-5·5	-5·3	-6·6	-8·2	-8·2	-6·3	-2·5	0·7	5·8	6·9	7·5	7·2	6·4	1·2	3·3	2·6	0·7	0·5	1·5	0·4	-6·1	-0·5
15	-7·2	-5·3	-3·1	-1·1	-2·9	-4·6	-6·8	-7·1	-5·2	-3·3	-2·0	1·3	5·0	7·1	8·0	6·7	4·7	4·1	3·3	2·0	0·3	1·3	-1·0	-1·4	-0·3
16 *q*	-1·6	-1·9	-3·1	-2·1	-5·4	-7·2	-8·6	-8·6	-8·8	-4·6	-1·4	1·3	4·8	6·3	5·8	4·3	2·3	0·6	0·6	1·3	0·8	0·9	0·4	-1·1	-1·0
17 *q*	-3·3	-3·2	-2·7	-2·5	-3·4	-5·0	-6·2	-5·2	-3·2	-1·1	2·3	7·2	9·0	7·6	5·6	3·9	4·2	3·6	2·3	2·0	2·2	1·9	-3·4	-2·9	0·4
18 *q*	-2·0	0·4	-2·7	-4·4	-5·3	-6·2	-6·3	-8·3	-8·2	-1·2	2·1	6·1	8·7	9·3	7·2	5·0	3·4	2·7	2·5	2·4	1·8	1·5	0·6	-0·8	0·3
19	-1·9	-3·4	-3·3	-4·0	-5·4	-6·9	-7·6	-8·2	-6·7	-4·3	-1·6	3·1	9·6	9·5	7·6	6·2	4·9	3·3	2·3	3·6	6·2	2·6	-8·0	-6·8	-0·4
20 *d*	-7·3	-36·1	-16·6	-7·6	-10·8	-12·1	-9·5	-4·5	-3·9	-2·9	1·1	9·5	15·1	17·8	12·6	9·6	8·2	6·2	4·4	5·1	5·9	3·7	1·3	-0·1	-0·5
21	-4·9	-5·1	-5·5	-6·6	-5·4	-9·9	-10·5	-7·6	-7·0	-5·2	-0·6	5·8	10·8	12·8	14·7	12·5	6·1	1·3	0·9	0·9	1·5	-2·7	-9·6	-2·2	-0·6
22	-2·6	-2·6	-3·2	-3·5	-6·0	-4·6	-5·7	-5·5	-5·4	-2·4	-1·7	0·9	4·7	9·4	9·8	8·0	6·4	3·4	0·7	2·7	-0·3	-1·2	-7·2	-4·7	-0·4
23	-3·9	-1·9	-6·5	-22·6	-7·8	-8·5	-9·0	-8·8	-8·6	-6·4	-1·4	4·1	9·6	10·9	11·0	7·7	5·1	2·8	-0·2	-0·6	-0·3	-0·4	-0·6	-4·4	-1·7
24	-4·7	-4·5	-2·4	-2·6	-8·3	-8·8	-9·5	-10·6	-7·3	-3·3	1·0	5·1	8·7	9·4	10·2	7·9	5·1	2·7	1·9	0·5	-1·7	0·8	1·0	-0·8	-0·4
25	-1·9	-1·2	-3·5	-3·5	-2·3	-4·4	-7·5	-5·4	-4·7	-3·2	-0·3	3·1	5·7	8·4	7·9	5·4	3·3	1·3	1·3	-0·2	-4·5	-3·4	-3·6	-1·2	-0·6
26 *q*	-2·1	-2·5	-0·5	-3·0	-4·0	-5·5	-6·5	-7·4	-6·8	-4·9	-1·7	2·3	5·9	7·0	7·2	6·1	4·1	1·7	0·3	-0·3	0·8	-0·2	-0·3	-0·4	-0·4
27 *q*	-0·6	-0·7	-1·1	-1·7	-2·4	-4·9	-6·6	-7·4	-7·3	-4·6	-1·5	2·2	4·9	6·7	7·4	6·4	4·8	1·7	1·1	1·2	2·2	1·4	-2·0	0·8	0·0
28	-1·6	-3·1	-2·8	-2·1	-2·6	-3·5	-2·2	-1·4	-0·7	-0·1	3·9	5·9	8·3	10·2	9·2	7·0	4·0	3·1	2·1	1·5	-0·7	-2·1	-3·7	-3·6	1·0
29	-7·5	-3·2	0·5	0·3	-2·3	-4·9	-7·1	-6·8	-5·5	0·8	3·2	4·3	9·1	9·6	13·0	7·7	7·1	1·2	3·1	-3·1	-0·5	-0·7	-5·1	-4·5	0·4
30	-10·9	-6·0	2·2	-6·8	-5·9	4·0	-2·7	-4·0	-4·0	-2·7	0·8	4·6	6·4	5·8	5·0	2·1	1·1	0·7	-0·5	-2·2	-5·6	-2·9	-3·1	-2·8	-1·1
31	-4·3	-2·6	-1·4	-1·6	-2·2	-2·6	-3·0	-3·6	-5·5	-1·2	2·6	5·6	7·3	7·4	4·6	2·7	1·2	0·7	-0·7	0·0	-1·8	0·7	-0·1	-4·6	-0·1
Mean	-3·3	-4·2	-3·9	-4·8	-4·0	-5·0	-5·7	-5·2	-5·9	-3·0	0·4	4·7	7·7	*8·2*	7·8	6·4	3·9	2·6	2·7	2·0	2·1	0·5	-1·6	-2·1	0·0

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

39 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — AUGUST

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	998	986	989	998	995	995	1012	1018	1016	1015	1024	1024	1025	1032	1029	1026	1032	1027	1026	1027	1024	1020	986	979	1013
2	973	947	957	990	1004	996	995	980	996	1004	1010	1005	1009	1040	1056	1043	1053	1044	1032	1016	1013	1017	1012	1010	1008
3	1007	1010	1010	1007	996	983	985	990	988	979	982	979	991	997	1012	1029	1032	1041	1045	1034	1018	1021	1015	1008	1007
4	1004	1003	986	959	983	988	994	998	998	1001	1006	997	1026	1021	1016	1050	1056	1059	1082	1070	1050	1032	1021	1012	1017
5	1006	1005	1004	992	968	978	994	1002	999	998	996	995	995	1004	1010	1018	1024	1011	1003	1002	1003	1003	1003	1003	1001
6	1004	1003	1006	1008	1005	1003	1000	1003	999	997	991	996	1005	1013	1034	1065	1099	1063	1028	1016	1010	1005	1000	999	1015
7	1002	1003	1006	1004	975	972	972	967	977	986	991	985	998	1020	1024	1014	1021	1021	1013	1009	1008	1002	997	966	997
8 *d*	917	776	803	880	681	744	802	842	881	975	1067	1056	1063	1042	1100	1080	1157	1096	1060	1004	895	966	794	896	*941*
9 *d*	848	821	802	814	846	923	981	1005	1011	1027	1028	1017	1023	1022	1020	1021	1047	1057	1030	1010	997	916	830	811	954
10 *d*	836	783	862	902	912	918	930	877	900	948	977	1003	1027	1041	1052	1083	1105	1066	1033	1039	1080	1049	1037	1017	978
11 *d*	1025	998	990	1010	1021	1012	968	991	1007	1016	1015	1009	1006	1010	1022	1040	1047	1041	1042	1044	1040	1024	1015	1025	1017
12	1007	936	954	993	1001	1003	992	1006	1028	1024	1033	1026	1037	1048	1054	1073	1084	1083	1064	1031	931	998	978	903	1012
13	894	912	959	962	942	929	976	956	945	1015	1009	1010	1015	1007	1007	1021	1022	1017	1016	1017	1020	1018	1011	1011	987
14	1016	1015	1013	1015	1015	1012	1014	1014	1009	1004	1005	1000	1010	1015	1012	1017	1046	1045	1040	1034	1036	1022	1012	987	1017
15	987	992	1003	1003	1006	1013	1017	1014	1011	1005	998	993	997	998	1004	1017	1024	1017	1015	1017	1021	1012	1005	1003	1007
16 *q*	996	998	1004	998	1000	1013	1016	1011	1006	1010	1004	999	998	1002	1004	1004	1006	1009	1010	1010	1009	1007	1010	1011	1006
17 *q*	1012	1013	1012	1013	1015	1015	1013	1011	1009	1007	1000	992	988	999	1008	1012	1009	1010	1018	1024	1018	1016	1009	1004	1009
18 *q*	1008	1001	994	1005	1012	1015	1013	1011	1007	999	996	992	998	999	1004	1012	1012	1016	1018	1018	1018	1017	1012	1012	1008
19	1011	1012	1015	1016	1017	1016	1016	1017	1010	1002	993	986	981	991	1001	1008	1010	1012	1001	999	993	998	999	938	1002
20 *d*	847	782	900	879	869	938	980	986	1004	1005	993	989	988	1037	1097	1066	1035	1022	1019	1009	1012	1027	1018	1006	979
21	999	985	988	988	967	985	999	1005	1012	1018	1017	1017	1030	1059	1112	1138	1134	1091	1051	1029	1015	1023	1012	986	1027
22	999	1008	1013	1016	1012	1007	1007	1012	1013	1016	1012	1005	1004	1005	1010	1012	1013	1019	1026	1024	1024	1013	1004	1007	1012
23	1013	1005	904	870	969	955	945	947	951	1004	996	992	995	991	1005	1025	1025	1024	1030	1028	1023	1019	1014	1006	989
24	1001	1006	1001	989	993	1003	1002	1006	1004	993	986	987	996	1005	1014	1029	1045	1054	1034	1024	1022	1019	1013	1012	1010
25	1010	1002	987	995	989	994	1010	1012	1009	1010	1011	1006	1004	1006	1011	1011	1013	1017	1013	1017	1017	1008	1008	1011	1007
26 *q*	1008	1005	1002	1005	1013	1017	1017	1016	1014	1012	1009	1005	1000	999	1001	1003	1012	1016	1020	1020	1016	1013	1010	1006	1010
27 *q*	1009	1009	1009	1009	1012	1014	1014	1010	1007	1007	1006	1001	995	996	1003	1014	1022	1029	1020	1013	1009	1013	1017	1006	1010
28	996	999	1006	1007	1007	1007	1007	1003	1001	1003	1006	1004	1003	1003	1011	1021	1049	1066	1053	1040	1037	1010	981	929	1010
29	973	972	958	954	960	971	996	1007	1007	1011	1012	1010	1029	1051	1067	1103	1131	1171	1118	1116	1064	1034	997	985	*1029*
30	935	965	944	935	952	920	934	978	997	1009	1020	1026	1049	1068	1054	1058	1044	1039	1039	1049	1044	1026	1017	1010	1005
31	1013	1018	1014	1018	1020	1015	1012	1015	1018	1024	1028	1020	1020	1024	1043	1043	1032	1025	1026	1024	1031	1030	1018	998	1022
Mean	979	*967*	971	975	973	979	987	991	995	1004	1007	1004	1010	1018	1029	1037	*1047*	1042	1033	1026	1016	1012	995	986	1003

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

40 LERWICK — AUGUST

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination			Vertical force							
	Maximum 14,000γ +		Minimum 14,000γ +		Range	Maximum 11° +		Minimum 11° +		Range	Maximum 46,000γ +		Minimum 46,000γ +		Range				
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ				°A.
1	19 50	426	309	22 26	117	22 18	10·7	-15·2	22 41	25·9	16 53	1037	965	22 57	72	2,3,2,3,2,2,2,4	20	1	91·0
2	14 10	416	303	6 41	113	12 10	9·2	-7·1	5 28	16·3	14 34	1063	940	1 18	123	3,2,3,2,3,2,2,2	19	1	90·3
3	18 5	434	330	7 59	104	13 40	8·2	-4·3	4 35	*12·5*	18 43	1049	974	9 44	75	1,2,2,2,3,3,2,2	17	1	88·5
4	18 45	492	284	10 22	208	12 25	17·4	-9·0	10 16	26·4	18 35	1088	953	3 30	135	2,3,2,3,4,3,4,2	23	1	89·4
5	18 3	401	323	11 29	78	13 42	8·6	-11·0	6 24	19·6	16 20	1027	956	4 31	71	2,3,1,2,2,2,1,1	14	0	88·9
6	15 10	458	321	10 37	137	13 1	12·8	-7·0	5 55	19·8	16 20	1109	990	10 55	119	0,2,1,1,4,4,2,1	15	1	89·2
7	23 2	439	329	10 40	110	12 35	10·3	-4·3	8 10	14·6	13 54	1034	948	23 59	86	0,3,3,2,3,1,1,3	16	1	89·0
8 *d*	15 34	*901*	-382	6 31	*1283*	20 8	*86·4*	-54·9	23 55	*141·3*	21 49	*1285*	*498*	4 36	*787*	6,7,7,6,7,7,7,8	55	2	88·5
9 *d*	20 24	499	*-450*	0 10	949	22 9	29·0	*-67·9*	0 6	96·9	0 32	1085	691	21 59	394	8,7,3,3,4,5,5,7	42	2	89·0
10 *d*	18 47	771	22	7 35	749	18 49	50·8	-23·8	2 2	74·6	16 19	1139	723	1 29	416	6,4,6,5,5,6,7,3	42	2	89·3
11 *d*	18 21	426	262	5 28	164	12 37	9·0	-18·5	7 13	27·5	16 0	1055	954	6 5	101	3,4,4,3,3,3,3,3	26	1	89·1
12	17 43	462	255	7 17	207	21 8	24·2	-16·6	23 50	40·8	16 54	1093	904	20 30	189	4,3,4,3,3,3,5,4	29	1	89·3
13	18 43	404	258	4 8	146	14 38	7·2	-18·8	1 8	26·0	16 35	1024	881	0 1	143	4,4,3,1,2,3,2,1	20	1	89·0
14	16 36	449	313	12 27	136	12 57	9·8	-9·4	6 50	19·2	17 0	1055	976	23 47	79	1,1,2,2,3,3,3,3	18	1	88·5
15	18 46	406	311	11 18	95	15 3	9·3	-9·9	0 9	19·2	16 15	1028	983	0 1	45	3,2,1,1,2,2,2,2	15	0	89·3
16 *q*	19 43	384	325	10 55	*59*	13 55	7·0	-9·9	6 22	16·9	6 15	1015	993	1 20	22	1,2,1,1,1,1,0,2	9	0	89·0
17 *q*	17 40	408	333	11 9	75	12 30	10·1	-7·7	22 35	17·8	19 29	1026	986	12 34	40	1,1,1,2,2,2,2,3	14	0	89·0
18 *q*	18 47	406	325	10 15	81	12 45	10·6	-10·3	7 52	20·9	20 16	1023	987	1 56	36	2,1,1,2,2,2,2,2	14	0	89·0
19	19 42	454	316	10 45	138	13 3	10·7	-13·5	23 8	24·2	4 0	1018	878	23 59	140	0,1,1,2,2,2,3,5	16	1	89·2
20 *d*	13 58	436	119	1 42	317	13 39	19·9	-56·8	1 39	76·7	14 30	1108	717	1 35	391	6,5,3,3,4,3,3,2	29	1	89·1
21	15 30	467	299	11 19	168	14 8	17·2	-14·1	22 22	31·3	16 13	1146	955	4 23	191	2,3,2,2,4,4,3,3	23	1	88·8
22	21 29	407	310	9 39	97	14 17	11·1	-10·2	22 37	21·3	20 20	1029	990	22 38	39	2,2,1,2,2,2,2,3	16	1	89·2
23	19 18	399	210	2 58	189	13 59	12·2	-33·3	3 10	45·5	18 53	1032	827	3 20	205	5,5,1,2,2,2,1,2	20	1	89·0
24	16 20	429	318	10 4	111	14 40	12·2	-11·8	6 56	24·0	16 56	1068	983	10 47	85	2,2,2,2,3,3,2,1	17	1	88·7
25	20 10	415	324	10 12	91	13 58	9·8	-8·8	7 0	18·6	20 4	1027	985	2 15	42	2,2,2,1,1,1,2,2	13	0	89·0
26 *q*	18 14	399	331	11 0	68	14 55	8·4	-8·0	7 47	16·4	19 17	1024	996	13 0	28	1,1,1,1,2,2,2,1	11	0	88·9
27 *q*	20 55	400	333	10 45	67	14 53	7·6	-8·0	7 20	15·6	17 20	1032	992	12 23	40	0,1,1,1,2,2,2,2	11	0	89·3
28	16 53	420	324	23 42	96	13 29	11·7	-9·7	23 59	21·4	17 48	1070	902	23 41	168	1,1,1,1,2,3,3,4	16	1	88·7
29	16 36	515	312	9 27	203	14 29	14·8	-15·4	19 55	30·2	17 22	1188	940	0 1	248	3,3,2,4,4,4,4,4	28	1	88·2
30	18 57	409	275	5 8	134	5 23	11·2	-13·3	0 39	24·5	14 20	1074	890	5 38	184	4,4,4,3,3,2,3,2	25	1	88·3
31	19 29	404	317	10 50	87	13 39	8·1	-9·2	23 52	17·3	14 38	1049	993	23 48	56	2,2,2,2,3,2,2,3	18	1	88·7
Mean	- -	456	244	- -	212	- -	15·7	-16·7	- -	32·4	- -	1068	915	- -	153	-	-	0·84	89·0

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

41 LERWICK (H) — 14,000γ (0·14 C.G.S. unit) + — SEPTEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *d*	359	210	322	335	335	349	373	368	360	344	325	333	348	352	395	367	373	379	373	393	373	279	363	368	349
2 *d*	372	312	325	331	310	328	351	342	328	321	320	319	336	352	386	382	377	379	409	410	378	368	380	369	354
3	351	349	356	359	360	360	360	360	350	337	337	351	354	410	393	381	392	410	374	366	370	370	374	366	366
4	370	369	366	362	370	366	367	351	303	293	337	334	383	364	372	388	433	413	407	391	380	382	375	364	368
5 *q*	362	360	363	363	360	361	362	359	340	337	337	345	351	351	359	363	362	365	372	376	381	382	378	380	361
6 *q*	375	376	373	373	367	365	359	360	359	345	340	342	353	344	353	369	384	379	388	385	386	384	372	384	367
7	381	377	368	375	377	341	377	378	369	351	340	334	339	340	351	362	365	377	395	391	382	384	384	381	367
8	381	377	354	373	373	373	370	366	347	336	323	324	334	345	355	358	369	380	382	384	384	380	377	375	363
9	378	362	372	373	375	367	369	369	359	344	330	336	333	346	354	372	385	390	384	385	382	382	384	384	367
10	377	376	373	372	371	370	370	365	353	340	327	325	350	358	379	377	416	395	399	392	392	389	383	379	372
11	376	378	383	380	377	373	366	370	364	341	324	327	341	349	373	395	409	399	398	388	381	374	373	370	371
12	363	351	327	354	377	375	362	359	350	336	334	344	355	384	426	372	364	403	410	390	373	371	371	374	368
13	372	350	377	379	376	377	374	366	354	337	330	341	337	337	341	350	358	368	377	382	384	387	384	383	363
14	381	380	378	380	372	359	369	367	351	337	330	323	333	341	352	363	367	369	377	383	383	382	381	380	364
15	378	377	375	378	377	374	371	362	351	341	345	348	352	360	390	361	367	396	402	413	413	380	241	124	357
16	208	291	286	306	347	362	355	338	335	329	315	319	333	357	359	362	387	393	409	387	378	376	344	372	344
17	366	367	371	370	363	361	353	347	342	334	323	326	334	350	365	368	366	376	375	377	378	375	375	372	360
18	373	373	372	372	367	366	361	354	342	334	335	338	351	367	368	373	389	379	390	393	379	366	380	357	366
19	338	359	369	366	366	362	350	342	333	319	317	318	336	350	361	363	365	372	398	384	378	379	379	380	358
20 *q*	381	379	379	378	376	371	364	346	328	326	325	322	327	349	357	371	368	385	386	385	385	380	369	382	363
21	379	379	380	380	379	375	369	351	343	339	331	328	334	340	354	375	383	384	384	400	395	391	389	390	369
22	390	379	382	380	379	376	372	371	364	349	340	337	330	337	347	353	372	382	393	402	409	408	400	405	*373*
23	382	380	370	385	387	389	380	382	370	351	350	343	331	329	346	363	387	387	389	386	389	385	380	362	371
24 *d*	342	340	357	337	364	368	369	356	328	322	318	315	315	357	359	419	424	447	481	418	383	368	350	315	365
25 *d*	292	344	371	375	376	372	336	363	353	330	323	340	358	452	457	424	411	420	378	360	358	355	326	228	363
26	84	288	305	269	339	365	363	357	336	317	331	328	336	321	345	364	353	378	386	378	371	370	364	343	*333*
27 *q*	366	370	370	370	370	371	371	367	359	346	337	332	328	335	343	353	360	368	375	375	377	377	374	373	361
28 *q*	374	374	375	374	375	374	372	367	358	346	337	331	335	339	344	353	363	372	378	380	381	382	383	382	365
29 *d*	383	383	383	385	378	357	366	360	331	325	313	322	340	357	365	413	465	353	355	358	360	360	361	307	362
30	294	283	320	338	349	357	365	353	341	349	352	335	331	334	371	389	375	375	366	367	369	368	367	371	351
Mean	351	353	360	362	366	365	365	360	347	335	*331*	332	341	354	367	373	383	386	*390*	386	381	375	369	357	362

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

42 LERWICK (D) — 11° + — SEPTEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 *d*	-7·4	-18·9	-12·0	-14·4	-8·1	1·4	-5·0	-10·2	-8·0	-3·0	1·7	4·3	7·4	7·0	8·8	7·3	3·6	1·7	1·1	-0·8	-9·7	-15·0	-0·8	-1·7	-2·9
2 *d*	-2·7	2·2	-4·2	-7·8	-9·9	-1·4	0·3	-0·9	-1·5	1·5	2·4	2·9	2·7	4·0	1·0	0·6	-0·3	-0·6	-2·0	2·5	-5·9	-9·0	-1·8	0·1	-1·2
3	-1·0	-2·2	-2·5	-1·7	-1·9	-2·8	-4·2	-5·7	-4·5	-1·3	0·3	2·5	4·5	5·5	5·3	2·6	2·6	-2·0	-2·7	-0·2	-0·3	-2·5	-5·8	-0·4	-0·8
4	0·2	1·7	4·1	3·4	2·1	-0·8	-1·6	0·2	-0·7	2·2	4·5	5·0	6·1	6·7	9·3	6·3	-4·7	-0·9	-3·1	-1·6	-2·2	-5·5	-1·6	-4·9	1·0
5 *q*	-2·3	-3·2	-3·5	-5·1	-5·3	-4·7	-3·0	-2·7	-4·7	-3·6	-1·4	1·7	4·3	5·4	4·7	3·2	1·1	-0·1	0·2	0·1	-1·0	-1·4	-1·3	-0·7	-1·0
6 *q*	-1·3	-1·7	-2·2	-2·3	-2·3	-2·1	-1·7	-1·2	-1·7	-0·2	2·2	4·9	6·7	5·8	4·9	2·9	1·1	1·7	0·4	0·2	0·4	-5·4	-4·7	-3·5	0·0
7	-3·2	-4·2	-3·2	-5·1	-5·1	6·9	-0·6	-5·5	-4·6	-3·6	-1·3	1·8	4·3	4·5	3·0	2·5	2·1	2·6	2·6	2·5	1·4	0·7	0·7	-1·2	-0·1
8	-1·7	-5·2	-4·1	-3·0	-7·4	-5·7	-5·8	-5·4	-4·6	-3·1	-0·9	3·4	5·5	7·6	6·4	3·0	1·9	1·1	0·5	1·2	1·0	-0·1	-2·1	-3·1	-0·9
9	-4·3	-5·1	-6·3	-4·4	-4·2	-5·7	-4·5	-6·5	-5·6	-3·7	-0·9	3·7	6·0	7·1	6·2	5·3	4·4	1·9	-0·3	0·5	-0·2	-0·4	-1·3	-2·2	-0·9
10	-1·3	-1·6	-2·2	-2·3	-3·1	-4·3	-6·6	-6·9	-6·8	-5·1	-2·2	2·2	7·7	10·5	11·9	8·7	11·2	3·9	4·5	4·4	3·0	1·9	0·6	-1·7	*1·1*
11	-2·2	-3·1	-2·7	-4·3	-4·6	-6·6	-6·9	-6·8	-6·2	-3·8	-0·6	3·2	2·5	10·9	12·4	9·6	3·5	0·0	-2·0	-5·1	0·1	-6·0	-3·4	-7·0	-1·2
12	-4·1	-1·2	-2·8	-9·6	-13·2	-10·8	-7·4	-7·6	-6·5	-3·1	-0·5	3·0	7·2	10·9	16·1	10·4	7·0	7·8	5·9	2·2	1·6	-0·3	-0·6	-2·2	0·1
13	-3·7	1·6	-2·3	-2·2	-2·9	-4·0	-3·7	-3·7	-2·8	0·1	2·6	4·6	6·2	5·6	4·0	2·6	1·0	0·5	0·6	0·5	-0·3	-0·6	-0·8	-1·2	0·1
14	-1·4	-2·2	-2·8	-3·2	-4·2	-2·9	-3·8	-7·0	-8·5	-4·6	1·0	5·4	6·6	5·8	4·1	2·0	0·6	0·2	0·3	0·7	0·3	-0·4	-0·8	-1·0	-0·7
15	-1·8	-2·3	-3·2	-3·2	-5·2	-4·2	-5·8	-7·1	-8·1	-5·6	-1·7	3·0	6·3	6·6	9·7	5·7	3·8	3·5	3·4	5·1	5·7	1·7	-19·0	-28·8	-1·7
16	-33·6	-23·2	-19·1	-30·6	-18·6	-9·5	-10·2	-9·9	-3·7	-2·8	0·0	2·8	5·8	8·2	5·1	3·1	2·9	2·7	4·0	3·0	0·2	0·9	-1·2	-6·0	*-5·4*
17	-5·2	-3·9	-3·8	-4·3	-4·2	-4·3	-5·2	-5·2	-4·6	-1·3	2·5	8·6	9·5	6·2	3·9	1·5	-0·3	-0·6	-0·4	0·6	-0·2	-0·2	-0·9	-1·7	-0·6
18	-1·7	-2·1	-5·5	-6·3	-5·9	-5·6	-6·2	-6·2	-5·6	-3·6	-0·1	4·3	7·0	7·2	4·3	2·1	0·0	0·1	0·7	-0·6	1·8	-0·9	-6·1	-11·4	-1·7
19	-11·3	-5·5	-3·1	-6·4	-8·6	-6·7	-7·9	-8·5	-6·1	-3·8	-0·3	2·5	5·3	6·0	4·7	2·5	1·3	1·7	1·1	-1·2	-0·2	0·3	0·0	-0·9	-1·9
20 *q*	-0·5	-1·8	-2·7	-3·1	-3·6	-4·7	-5·6	-7·7	-6·1	-3·4	0·3	3·1	5·2	6·7	3·4	0·6	0·1	1·0	0·4	1·3	1·0	-1·5	-3·6	-7·4	-1·2
21	-3·2	-2·0	-2·0	-2·4	-3·0	-4·1	-5·0	-2·8	-3·6	-3·2	-2·8	0·6	4·7	5·2	5·7	5·7	4·0	1·5	0·9	3·8	0·6	0·2	-1·2	-3·2	-0·2
22	-3·7	-6·5	-8·0	-6·0	-4·7	-6·4	-5·2	-5·5	-6·0	-4·9	-3·5	-0·4	2·4	5·7	7·0	5·5	4·5	3·6	2·6	2·8	1·9	1·5	1·2	-11·2	-1·4
23	-4·6	-6·9	-4·6	-11·1	-7·5	-5·8	-5·5	-3·5	-4·7	-5·4	-4·1	1·0	6·1	8·5	10·0	8·5	6·5	1·2	-0·5	0·6	0·1	-4·1	-7·2	-8·5	-1·7
24 *d*	-16·8	-11·3	-18·2	-14·8	-6·1	-5·2	-5·8	-7·4	-6·2	-4·2	0·5	4·4	5·5	7·6	6·9	1·0	-0·9	8·1	8·2	-3·2	-2·3	-10·8	-8·9	-9·9	-3·7
25 *d*	-5·6	-0·2	-1·1	-2·8	-2·3	1·4	11·3	3·8	-0·9	1·0	1·2	5·8	6·6	4·1	4·4	5·6	5·2	0·8	-4·1	-4·5	-4·8	-8·2	-10·1	-12·8	-0·3
26	-17·6	-4·1	-6·2	-8·2	1·4	-3·0	-5·3	-5·2	-4·1	-3·2	0·1	2·4	3·9	5·2	5·8	3·5	1·0	-0·9	-2·2	-2·7	-3·9	-3·6	-1·4	0·1	-2·0
27 *q*	-3·0	-3·8	-2·8	-2·8	-2·8	-3·2	-3·6	-4·7	-4·6	-3·7	-1·4	0·6	2·4	3·0	3·0	2·1	0·1	-0·9	-0·9	-0·4	-0·4	-0·4	-1·6	-0·9	-1·3
28 *q*	-1·4	-1·8	-2·3	-2·8	-2·8	-3·4	-4·2	-5·1	-5·2	-4·2	-2·4	-0·1	2·4	3·5	3·9	3·4	2·0	0·6	0·5	0·6	0·2	-0·3	-0·4	-0·6	-0·8
29 *d*	-1·4	-1·9	1·9	-5·7	-7·8	-1·4	2·6	5·8	1·6	-1·4	-1·4	1·6	3·0	6·2	4·1	7·2	4·4	-1·4	-0·8	-2·5	-4·8	-3·2	-1·0	-8·5	-0·2
30	-17·8	-7·6	-3·0	-4·5	-4·0	-3·0	-2·1	-1·5	-1·1	-3·3	-0·6	0·5	3·3	4·3	8·5	6·5	-1·5	-0·3	-0·2	-1·0	-1·5	-1·6	-1·9	-2·3	-1·5
Mean	-5·5	-4·3	-4·3	*-5·9*	-5·2	-3·7	-3·9	-4·7	-4·5	-2·8	-0·2	3·0	5·2	*6·4*	6·3	4·4	2·3	1·3	0·6	0·3	-0·6	-2·5	-2·9	-4·8	-1·1

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

43 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — SEPTEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *d*	963	816	865	843	856	873	916	978	997	1008	1019	1020	1040	1074	1080	1079	1037	1030	1031	1032	1001	941	1001	1001	*979*
2 *d*	973	933	907	889	915	934	961	976	1007	1023	1027	1044	1057	1056	1062	1057	1043	1037	1037	1055	1031	998	1003	1007	1001
3	979	980	993	1015	1025	1024	1020	1021	1021	1015	1011	1018	1030	1046	1089	1099	1069	1075	1058	1035	1025	1016	996	1006	1028
4	1015	1015	1015	1014	1010	1013	1014	1015	1018	1025	1012	1022	1040	1045	1044	1046	1086	1075	1058	1027	1030	1016	983	991	1026
5 *q*	1002	1008	1008	1012	1015	1021	1015	1016	1021	1015	1008	1004	1004	1008	1010	1015	1020	1019	1015	1015	1013	1013	1014	1009	1013
6 *q*	1010	1010	1013	1016	1020	1018	1016	1014	1014	1008	1001	998	1005	1014	1019	1030	1043	1039	1031	1028	1025	1013	996	988	1015
7	991	980	996	1004	1007	972	933	973	990	1001	1006	1007	1003	1005	1009	1009	1009	1011	1011	1019	1022	1016	1012	1012	1000
8	1009	997	998	984	998	1010	1016	1015	1016	1013	1009	1005	999	997	1007	1009	1011	1016	1019	1016	1014	1015	1016	1015	1009
9	997	963	964	999	1005	1014	1014	1016	1016	1016	1018	1012	1010	1005	1009	1011	1022	1039	1039	1026	1022	1019	1015	1009	1011
10	1009	1008	1011	1014	1016	1017	1020	1020	1020	1019	1016	1009	996	999	998	1009	1009	1034	1029	1027	1025	1026	1025	1023	1016
11	1020	1015	1006	1010	1015	1013	1013	1010	1010	1006	1004	1000	1004	1012	1021	1048	1080	1076	1060	1042	1029	992	978	998	1019
12	999	985	951	932	951	981	1002	1010	1012	1017	1014	1008	1008	1004	1034	1083	1065	1050	1079	1082	1053	1031	1016	1003	1015
13	1000	968	972	1004	1013	1015	1012	1012	1015	1016	1013	1007	1012	1013	1010	1011	1013	1012	1010	1010	1012	1014	1013	1015	1008
14	1016	1016	1017	1013	1013	1008	989	994	1003	1005	1008	1014	1015	1018	1017	1017	1016	1013	1013	1013	1013	1016	1016	1018	1012
15	1018	1018	1018	1014	1011	1011	1011	1013	1012	1009	1000	1002	1005	1007	1023	1046	1030	1028	1030	1042	1068	1075	969	902	1015
16	855	925	935	899	946	997	1019	1024	1027	1026	1022	1021	1024	1028	1043	1042	1047	1058	1060	1061	1049	1017	976	998	1004
17	1013	1019	1019	1019	1023	1024	1024	1024	1025	1022	1025	1027	1035	1025	1022	1027	1031	1031	1028	1018	1016	1015	1015	1016	1023
18	1017	1011	1006	1009	1014	1018	1019	1020	1019	1017	1012	1007	1006	1014	1024	1031	1044	1040	1036	1032	1031	1033	990	968	1017
19	965	970	972	975	1001	1015	1023	1024	1022	1019	1014	1011	1006	1006	1009	1012	1013	1013	1012	1025	1023	1013	1011	1011	1007
20 *q*	1012	1014	1015	1017	1019	1019	1019	1018	1015	1006	1004	1003	1002	1004	1020	1037	1033	1022	1026	1025	1023	1019	1013	971	1015
21	986	1007	1013	1016	1018	1019	1019	1018	1012	1007	1007	1007	1011	1012	1010	1014	1022	1030	1027	1014	1020	1013	1009	1007	1013
22	1002	990	991	1002	1010	1013	1017	1015	1012	1012	1008	1002	1001	998	998	1002	1004	1006	1007	1004	1003	1003	1007	1002	1005
23	1020	998	936	941	972	989	999	1002	1005	1010	1009	1004	1004	1006	1007	1020	1031	1045	1046	1033	1028	1032	1009	921	1003
24 *d*	917	942	936	954	955	994	1017	1016	1014	1003	1010	1019	1017	1026	1039	1077	1099	1099	1136	1093	1021	994	964	959	1013
25 *d*	927	902	978	1008	1014	1008	985	974	998	1019	1032	1046	1081	1139	1130	1104	1101	1136	1088	1067	1049	1033	986	913	1030
26	868	900	945	934	940	949	983	1000	1014	1036	1043	1046	1052	1051	1040	1061	1054	1046	1048	1058	1041	1022	982	947	1003
27 *q*	952	1000	1013	1014	1018	1019	1022	1028	1031	1031	1032	1030	1026	1021	1023	1028	1030	1029	1027	1023	1022	1022	1023	1022	1020
28 *q*	1022	1022	1022	1022	1022	1022	1022	1022	1023	1023	1023	1022	1019	1016	1015	1014	1015	1015	1015	1017	1020	1022	1022	1022	1020
29 *d*	1022	1016	993	968	980	987	970	977	991	1009	1024	1046	1068	1060	1083	1121	1163	1093	1057	1054	1058	1046	1027	990	*1033*
30	943	940	947	981	1009	1015	1013	1018	1024	1027	1030	1040	1052	1049	1046	1074	1124	1083	1055	1038	1032	1025	1023	1020	1025
Mean	984	*979*	982	984	994	1000	1003	1009	1013	1015	1015	1017	1021	1025	1031	1041	*1045*	1043	1040	1034	1027	1017	1004	992	1013

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

44 LERWICK — SEPTEMBER

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination			Vertical force							
	Maximum 14,000γ +		Minimum 14,000γ +		Range	Maximum 11° +		Minimum 11° +		Range	Maximum 46,000γ +		Minimum 46,000γ +		Range				
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ				°A.
1 *d*	14 45	436	46	1 35	390	15 0	10·6	-28·4	1 35	39·0	15 10	1092	*709*	1 36	*383*	6,4,4,2,4,3,5,5	33	1	88·5
2 *d*	18 54	442	283	1 45	159	1 35	13·0	-18·0	3 59	31·0	14 38	1069	868	3 29	201	4,4,3,3,3,2,3,4	26	1	89·3
3	13 13	436	331	10 0	105	13 8	9·6	-13·3	22 19	22·9	15 15	1106	967	0 31	139	2,2,1,2,4,3,3,3	20	1	89·0
4	16 36	471	247	9 4	224	14 30	12·1	-12·2	16 31	24·3	16 22	1106	973	22 22	133	2,2,3,4,4,4,3,3	25	1	89·0
5 *q*	21 12	388	321	8 49	67	12 42	5·9	-6·4	5 26	12·3	8 55	1026	997	12 45	29	1,1,2,1,2,1,1,1	10	0	89·0
6 *q*	18 25	391	335	10 55	*56*	12 15	7·5	-10·8	21 50	18·3	16 39	1045	979	23 35	66	1,1,2,1,2,2,1,3	13	0	89·4
7	18 29	406	301	5 26	105	5 40	13·0	-7·4	8 22	20·4	20 10	1024	901	5 56	123	2,4,4,2,1,1,2,1	17	1	88·7
8	19 9	389	315	11 54	74	13 50	9·2	-9·3	4 39	18·5	23 27	1023	978	3 21	45	3,3,2,2,2,2,1,2	17	1	89·5
9	17 31	407	321	12 35	86	13 52	8·2	-8·6	1 6	16·8	18 8	1046	929	2 0	117	3,2,1,2,2,3,2,1	16	1	89·0
10	16 16	423	320	10 59	103	14 9	13·9	-8·2	8 19	22·1	17 25	1042	990	12 37	52	1,1,1,1,2,3,2,2	13	0	89·5
11	18 12	429	308	10 52	121	15 20	14·4	-12·7	21 33	27·1	16 22	1088	955	22 5	133	2,1,2,2,2,2,3,3,3	18	1	89·5
12	14 16	439	309	2 23	130	14 49	*18·2*	-16·6	4 50	34·8	18 59	1090	921	3 10	169	3,3,1,3,3,3,3,3	22	1	89·2
13	21 3	390	317	1 15	73	1 20	8·2	-5·8	5 53	14·0	6 5	1017	926	1 47	91	4,1,2,2,2,1,1,0	13	1	89·2
14	20 6	385	312	11 37	73	12 23	8·2	-11·4	8 5	19·6	13 48	1021	983	6 54	38	0,2,2,2,2,2,1,0	11	0	89·4
15	21 4	438	75	23 41	363	21 48	16·7	-33·9	23 40	*50·6*	21 45	1144	833	23 59	311	1,1,1,2,3,3,3,6	20	1	89·7
16	18 24	435	128	0 1	307	13 40	9·0	*-40·6*	0 34	49·6	18 50	1071	832	0 39	239	5,5,3,1,3,3,3,3	26	1	89·4
17	18 7	384	317	10 24	67	12 10	11·6	-7·0	7 40	18·6	12 30	1040	1007	0 1	33	1,2,1,2,2,1,1,1	11	0	89·2
18	16 10	399	325	9 45	74	13 3	9·3	-14·6	23 59	23·9	16 30	1047	961	23 14	86	2,2,2,2,2,2,2,3	17	1	89·0
19	18 32	417	308	11 4	109	13 55	6·8	-14·6	0 1	21·4	19 46	1031	952	0 28	79	3,3,2,2,2,1,3,1	17	1	89·0
20 *q*	18 9	397	318	11 4	79	13 20	7·5	-9·6	23 5	17·1	16 4	1038	963	23 39	75	1,1,2,2,2,2,2,3	15	0	88·2
21	19 2	421	323	11 31	98	15 0	6·7	-6·1	23 55	12·8	17 37	1033	976	0 1	57	2,1,2,1,1,2,2,2	13	0	87·2
22	23 24	449	325	12 43	124	14 35	8·2	-21·5	23 34	29·7	23 48	1020	984	2 9	36	2,1,1,1,2,2,3,4	16	1	86·3
23	4 9	397	322	13 5	75	14 45	10·6	-17·5	3 9	28·1	17 55	1054	898	23 44	156	5,4,3,3,2,3,2,5	27	1	86·0
24 *d*	18 52	552	270	23 41	282	18 11	13·6	-25·1	0 15	38·7	18 45	1160	903	0 21	257	3,4,2,3,3,3,5,4	27	1	86·0
25 *d*	14 0	540	145	23 52	*395*	6 28	14·3	-21·7	23 59	36·0	13 56	1177	849	23 52	328	4,3,3,3,5,3,4,5	30	1	86·0
26	18 28	396	*23*	0 29	373	14 45	6·6	-24·0	0 45	30·6	15 52	1067	836	0 48	231	6,5,3,3,3,3,2,4	29	1	86·3
27 *q*	21 4	380	323	12 9	57	14 43	3·6	-6·0	8 20	*9·6*	10 48	1034	931	0 8	103	4,1,1,1,1,1,1,0	10	0	86·5
28 *q*	22 50	387	329	11 45	58	13 55	4·0	-5·6	8 20	*9·6*	9 51	1025	1012	14 55	*13*	1,0,0,1,1,1,0,0	4	0	87·5
29 *d*	16 18	*591*	270	23 57	321	16 28	15·8	-19·4	23 44	35·2	16 16	*1199*	963	3 25	236	3,3,2,3,3,6,2,4	26	1	88·2
30	15 38	396	243	1 40	153	14 28	10·4	-22·2	0 45	32·6	16 35	1138	909	0 44	229	4,3,2,2,3,4,2,1	21	1	88·8
Mean	- -	427	270	- -	157	- -	10·2	-15·3	- -	25·5	- -	1069	929	- -	139	-	-	0·70	88·4

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

45 LERWICK (H) — 14,000γ (0·14 C.G.S.) + — OCTOBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *d*	373	350	361	373	356	239	354	364	360	289	280	331	374	447	382	342	332	348	358	361	375	374	374	372	353
2	375	356	358	366	364	310	301	330	294	283	329	337	328	407	431	396	337	340	348	353	353	366	356	361	349
3	345	347	341	344	352	364	377	367	345	325	319	326	344	351	373	418	455	504	370	356	357	355	332	332	362
4	361	360	357	358	361	359	344	353	349	338	329	328	333	340	361	362	374	380	391	379	344	315	259	109	339
5	308	294	307	356	373	351	368	376	356	340	335	336	337	346	364	371	383	373	372	381	373	373	373	370	355
6 *q*	370	366	363	373	370	369	367	362	352	340	333	329	332	342	354	364	371	375	382	379	378	377	381	377	362
7	376	378	381	378	381	382	380	374	365	355	338	336	343	353	358	363	367	375	382	382	380	372	380	377	369
8 *q*	370	375	377	380	377	380	380	380	372	350	345	340	343	348	364	366	371	375	380	382	382	381	380	388	370
9 *q*	374	381	379	379	382	382	380	376	369	359	346	340	336	342	353	364	383	394	380	384	388	388	386	381	372
10	389	384	380	374	364	371	266	273	338	348	326	312	319	328	345	361	374	377	385	389	387	387	385	376	356
11	364	347	372	377	374	377	370	366	373	370	349	338	320	333	377	342	379	367	397	374	374	374	377	380	365
12	371	371	373	371	372	375	380	365	354	349	325	311	348	341	360	366	369	377	377	380	379	382	384	377	365
13	367	368	366	371	380	379	379	367	352	338	329	331	345	358	361	371	398	378	376	378	379	383	377	378	367
14	373	375	374	373	378	379	374	369	360	331	323	326	339	350	372	404	399	376	375	373	372	201	183	189	345
15 *d*	-28	-38	174	261	300	334	342	296	290	291	329	344	370	489	438	522	416	400	367	342	278	344	349	348	315
16 *q*	348	348	347	331	344	350	355	347	337	327	319	318	324	326	333	344	354	370	357	361	367	369	369	369	346
17	369	369	370	371	371	372	370	362	339	337	324	318	324	335	346	356	363	367	371	378	380	377	396	-267	333
18 *d*	-535	350	294	176	173	302	362	358	356	338	331	336	339	357	371	391	384	440	472	404	361	301	346	-63	289
19 *d*	-13	16	9	129	32	-44	-33	56	164	317	356	370	328	361	420	450	394	362	356	313	345	347	342	324	238
20	335	329	329	335	347	353	359	353	342	331	322	316	320	351	389	402	421	441	384	343	356	335	345	354	354
21 *d*	311	309	313	352	253	276	307	344	260	248	325	331	295	324	350	398	496	498	319	344	218	315	335	349	328
22	351	349	348	350	356	360	351	335	333	325	282	299	410	418	322	344	360	352	368	353	232	219	299	329	335
23	265	311	342	352	361	351	336	344	352	336	313	313	385	389	404	403	454	385	385	354	312	315	329	301	350
24	312	317	353	343	350	354	355	351	352	342	342	347	345	370	422	402	402	376	372	338	342	351	338	321	354
25	346	360	365	360	365	369	370	370	357	346	335	334	345	365	364	381	389	376	360	363	366	367	363	362	362
26	351	342	356	350	362	365	366	359	355	353	349	346	353	363	373	386	367	376	358	368	364	346	321	302	355
27	330	273	305	358	375	375	364	363	351	351	338	340	381	503	400	351	348	355	358	351	331	354	347	352	356
28	357	360	353	344	359	361	359	366	354	346	341	344	342	344	347	358	363	373	372	374	372	372	382	368	359
29	361	368	369	365	372	381	374	370	371	355	349	345	357	358	355	366	372	370	367	370	363	361	359	361	364
30 *q*	370	373	375	375	367	379	381	376	370	357	352	348	349	355	359	366	375	377	378	380	380	379	378	385	370
31	380	378	377	355	384	395	388	371	362	356	341	341	348	358	368	372	365	370	371	370	366	375	372	375	368
Mean	*301*	328	338	345	344	343	346	347	341	335	331	333	344	366	371	380	384	*385*	374	366	353	350	351	311	349

MAGNETIC DECLINATION (WEST)
Mean values for periods of sixty minutes at exact hours, G.M.T.

46 LERWICK (D) — 11° + — OCTOBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 *d*	-1·6	-3·8	-6·7	-12·3	-15·8	3·6	-3·2	0·2	-3·6	1·8	3·3	3·9	8·6	4·7	5·0	5·7	2·4	0·9	0·0	-0·1	-0·2	-2·0	-2·9	-5·9	-0·7
2	-5·6	-4·7	-3·5	-3·3	-3·9	-1·0	18·8	9·7	0·2	-3·5	-3·3	1·4	3·3	9·2	8·1	3·3	0·2	-4·8	-2·7	-2·4	-5·2	-10·0	-3·7	-4·7	-0·3
3	-8·5	-5·9	-2·2	-2·4	-3·9	-3·7	-1·1	-2·9	-1·5	-1·0	3·0	4·9	5·7	6·5	7·9	8·5	7·3	2·2	-6·3	-3·5	-2·9	-11·7	-11·5	-6·1	-1·2
4	-4·8	-2·9	-2·5	-2·9	-3·8	-4·1	1·9	4·6	-1·9	-3·3	-1·0	1·4	3·3	2·8	2·3	0·8	1·2	0·8	2·2	-3·6	-10·5	-11·8	-12·7	-1·8	-1·9
5	-6·7	-13·1	-7·8	-8·6	-11·0	-8·3	-4·3	-5·5	-5·7	-5·4	-3·3	2·5	5·7	6·8	5·5	2·8	-0·1	0·0	-1·0	-2·5	-3·8	-1·9	-2·0	-3·8	-3·0
6 *q*	-4·0	-4·8	-1·9	-5·2	-4·4	-4·3	-4·8	-5·7	-6·2	-5·6	-3·9	-1·7	1·4	2·8	3·3	2·3	0·8	0·5	0·5	0·5	0·5	-2·0	-3·0	-2·1	-2·0
7	-3·1	-4·0	-4·6	-4·3	-4·0	-4·3	-4·3	-4·7	-5·0	-4·2	-1·6	1·2	3·6	3·8	2·7	1·3	0·1	0·4	-0·1	-1·5	-5·6	-9·4	-6·2	-5·8	-2·5
8 *q*	-5·8	-2·8	-3·3	-5·1	-3·8	-3·9	-4·3·	-5·5	-6·7	-5·4	-2·9	1·8	3·3	5·4	5·5	2·3	0·2	-0·4	0·2	0·1	-0·7	-1·5	-3·5	-4·9	-1·7
9 *q*	-6·0	-2·9	-2·3	-2·8	-3·2	-3·3	-4·2	-4·8	-5·4	-5·3	-3·3	-0·5	1·7	2·9	2·4	1·5	1·3	1·3	1·5	0·5	0·5	-0·2	-3·3	-4·5	-1·6
10	-3·3	-6·8	-5·2	-5·2	2·3	7·9	15·0	12·8	7·8	-2·6	-1·6	0·5	1·9	4·8	5·2	4·3	3·7	4·8	4·1	3·9	2·3	1·1	-1·6	-3·2	2·2
11	-6·2	-5·3	-6·3	-5·2	-5·0	-4·2	-5·6	-6·3	-6·7	-4·2	-2·1	2·2	5·4	6·9	9·7	5·3	2·5	1·2	0·9	-5·9	-2·3	-2·4	-4·5	-4·1	-1·8
12	-1·6	-3·5	-4·3	-3·4	-4·4	-5·4	-6·0	-7·1	-5·4	-3·2	0·5	1·7	9·8	5·5	6·3	4·4	-3·2	-1·0	-0·5	-0·7	-0·7	-4·3	-7·1	-9·4	-1·8
13	-5·4	-2·5	-3·7	-2·0	-4·5	-4·6	-5·3	-5·9	-5·4	-1·7	1·3	5·1	8·0	8·7	6·1	4·1	6·1	2·6	-0·2	1·4	-0·4	-4·0	-1·6	-2·4	-0·3
14	-1·9	-3·7	-4·9	-3·7	-4·0	-5·5	-4·3	-4·8	-4·2	-3·2	0·5	3·3	7·8	8·3	4·1	4·8	4·7	1·0	-1·8	-0·3	-2·1	-4·5	-19·3	-18·5	-2·2
15 *d*	-33·6	-15·9	-29·7	-24·7	-10·5	-7·9	-4·3	-4·2	1·7	1·6	1·7	4·3	6·4	1·6	6·3	6·4	-2·0	-7·2	-1·5	1·8	-6·6	-5·0	-2·8	-2·4	-5·5
16 *q*	-2·4	-2·8	-3·9	-2·3	-6·2	-4·3	-5·9	-6·7	-6·6	-5·6	-3·4	0·5	3·2	2·4	1·2	-0·7	-2·5	-4·1	-5·7	-1·8	-1·6	-1·9	-2·1	-1·8	-2·7
17	-1·9	-2·3	-2·5	-3·2	-3·3	-3·6	-5·4	-8·7	-6·6	-7·1	-4·5	-1·5	1·9	3·8	2·8	1·5	0·5	0·6	0·5	-0·6	-3·3	-3·4	-19·7	-35·5	-4·2
18 *d*	-32·9	-12·0	-16·1	-23·9	-20·0	-14·3	-6·7	-11·2	-10·4	-5·1	-1·3	0·5	2·4	4·1	5·1	3·9	1·3	4·9	-5·0	-0·8	-10·4	-11·4	-1·2	12·7	-6·2
19 *d*	-31·8	-42·2	-36·1	-23·9	6·2	42·0	20·5	1·5	-14·8	-0·3	3·3	0·0	4·5	3·5	-1·3	1·3	-6·3	-2·9	-2·6	-2·5	-4·7	-6·2	-3·9	-1·7	-4·1
20	-5·3	-2·9	-2·0	-2·3	-4·2	-5·3	-4·6	-6·5	-8·1	-7·4	-5·1	-2·3	-0·3	4·6	6·1	2·1	-3·2	-2·0	-3·3	-5·3	-7·1	-10·6	-5·9	-2·2	-3·5
21 *d*	-2·3	-8·4	-6·2	-3·9	4·1	17·5	15·6	-0·2	-3·3	4·6	2·3	3·9	4·8	4·9	2·3	-0·1	-3·7	2·0	-6·4	-6·4	-23·2	-21·4	-11·0	-5·3	-1·7
22	-3·2	-3·3	-3·3	-3·6	-3·4	-3·7	-2·8	-2·4	-3·5	-1·4	0·5	3·8	4·9	9·6	5·1	0·5	-0·4	-1·3	-12·1	-21·2	-16·6	-14·2	-16·0	-11·5	-4·1
23	-13·6	-8·9	-7·4	-3·0	-5·6	-3·4	-1·8	-2·5	-5·3	-1·5	0·1	3·9	3·8	3·2	5·3	0·4	-6·1	0·2	-1·1	-4·8	-6·3	-10·0	-11·3	-11·1	-3·4
24	-7·2	-11·9	-7·7	-4·4	-2·4	-2·5	-1·8	-1·9	-7·4	-6·6	-1·5	2·2	0·6	5·5	-2·0	4·8	-7·7	-6·7	-5·8	-15·2	-6·1	-7·7	-9·0	-8·1	-4·6
25	-10·0	-4·0	-2·0	-2·8	-3·0	-2·1	-1·8	-1·8	-4·2	-4·0	-1·4	-0·6	0·9	3·6	3·3	1·5	-5·9	-7·3	1·5	-0·2	-2·0	-12·4	-7·6	-3·9	-2·8
26	-3·4	-12·4	-13·0	-9·9	-7·2	-3·8	-4·6	-3·0	-3·5	-4·9	-1·1	1·7	2·7	2·5	-0·6	0·8	-5·4	-1·7	0·8	-1·1	-3·9	-9·2	-5·9	-15·3	-4·2
27	-10·6	0·8	2·2	-5·3	-4·4	-2·0	-1·1	0·4	-2·5	1·1	2·7	4·0	5·4	1·3	3·8	1·5	-1·5	0·4	-9·9	-11·9	-11·4	-9·2	-12·2	-9·3	-2·8
28	-3·4	-3·8	-5·8	0·4	-3·2	-3·5	-2·4	-2·2	-6·2	-6·1	-3·9	0·5	2·1	2·2	2·1	0·8	-3·4	-0·6	-2·0	-5·7	-2·5	-3·4	-6·3	-5·4	-2·6
29	-2·9	-3·5	-2·4	-0·2	-2·0	-3·0	-3·0	-3·5	-5·0	-4·2	-1·1	1·7	1·4	5·6	2·5	1·2	-1·0	-0·6	-2·1	-3·9	-7·1	-6·7	-9·0	-7·7	-2·4
30 *q*	-2·6	-1·5	-1·3	-2·7	0·7	-2·1	-3·7	-5·8	-6·8	-3·6	-2·2	0·4	1·7	2·2	1·2	1·2	0·1	-0·6	-1·5	-2·2	-2·5	-2·7	-2·6	-6·1	-1·8
31	-6·2	-3·6	-4·0	1·4	-6·2	-3·5	0·6	0·7	0·6	0·4	2·2	4·3	4·2	4·0	2·3	2·2	-1·3	-1·6	-2·2	-3·4	-9·7	-8·3	-4·0	-3·3	-1·4
Mean	-7·7	-6·6	-6·5	-5·8	-4·5	-1·5	-0·8	-2·7	-4·6	-3·1	-0·9	1·8	3·9	*4·6*	3·9	2·6	-0·7	-0·6	-2·0	-3·2	-5·0	-6·7	-6·9	-6·3	-2·5

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

47 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — OCTOBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *d*	1025	1003	955	978	948	931	883	954	988	1022	1028	1062	1104	1145	1121	1083	1069	1049	1040	1037	1037	1037	1016	985	1021
2	1017	1029	1025	1028	1024	1012	953	925	984	1014	1053	1071	1085	1115	1136	1122	1080	1066	1046	1036	1036	1029	1022	1013	1038
3	1014	1014	1011	987	1000	1017	1011	1019	1025	1029	1027	1035	1065	1084	1088	1135	1173	1161	1064	1061	1060	1035	998	991	1042
4	1019	1031	1042	1044	1041	1036	1024	1006	1014	1026	1025	1024	1023	1023	1029	1042	1036	1036	1047	1077	1035	986	867	840	1016
5	868	930	962	968	986	996	998	1003	1013	1017	1019	1020	1027	1028	1024	1023	1030	1041	1037	1027	1024	1019	1019	1019	1004
6 *q*	1019	1024	1011	1010	1020	1024	1025	1027	1028	1026	1024	1019	1016	1016	1019	1024	1027	1028	1024	1028	1029	1028	1018	1019	1022
7	1019	1018	1015	1017	1019	1019	1020	1024	1024	1024	1022	1014	1011	1007	1011	1017	1022	1023	1023	1035	1033	1028	1007	962	1017
8 *q*	989	1011	1023	1023	1024	1024	1024	1024	1023	1024	1019	1012	1007	1006	1012	1020	1018	1018	1017	1017	1019	1019	1020	1009	1017
9 *q*	1009	1005	1011	1014	1015	1016	1017	1018	1019	1021	1021	1018	1014	1012	1011	1013	1012	1017	1027	1022	1018	1017	1022	1019	1016
10	1002	1005	1011	996	983	957	969	937	969	1005	1024	1024	1019	1017	1017	1017	1013	1016	1017	1023	1036	1034	1030	1027	1006
11	1021	992	994	1012	1016	1016	1017	1023	1022	1024	1029	1031	1041	1038	1041	1055	1058	1061	1060	1025	1022	1030	1025	1007	1027
12	993	1005	1006	1008	1011	1012	1015	1023	1023	1027	1030	1037	1031	1041	1035	1039	1049	1037	1028	1024	1023	1022	1022	1014	1023
13	1009	1010	1013	1010	1009	1015	1016	1022	1027	1026	1022	1016	1010	1013	1018	1019	1027	1064	1061	1043	1034	1030	1027	1021	1023
14	1000	1012	1021	1022	1020	1016	1021	1022	1021	1024	1021	1022	1026	1037	1059	1086	1119	1087	1057	1034	1034	988	978	903	1026
15 *d*	905	770	802	888	946	968	987	1012	1028	1033	1067	1108	1117	1149	1134	1164	1141	1090	1068	1057	938	1016	1031	1032	1019
16 *q*	1033	1034	1028	1003	993	1012	1028	1034	1036	1034	1034	1037	1040	1043	1039	1034	1034	1040	1059	1037	1028	1025	1024	1023	1031
17	1026	1027	1028	1027	1027	1024	1025	1029	1034	1030	1029	1031	1027	1027	1027	1025	1022	1021	1021	1020	1022	1027	874	659	1005
18 *d*	1036	890	954	930	961	949	986	1009	1020	1023	1038	1048	1050	1051	1045	1046	1057	1074	1110	1075	1002	1012	988	891	1010
19 *d*	894	939	921	673	660	610	725	912	1024	1068	1057	1117	1103	1117	1148	1145	1125	1109	1083	996	1033	1032	1030	1006	*980*
20	1008	1015	1020	1020	1022	1032	1037	1045	1045	1043	1043	1040	1038	1040	1077	1112	1134	1142	1086	1048	1036	1027	1020	1027	*1048*
21 *d*	1009	961	949	974	945	818	866	952	1024	1029	1043	1088	1085	1046	1051	1080	1195	1133	967	1021	1026	1031	1016	1039	1015
22	1043	1044	1045	1045	1043	1036	1040	1045	1049	1057	1074	1080	1097	1110	1077	1054	1050	1068	1091	1049	962	883	886	919	1035
23	942	935	985	1017	1023	1027	1026	1026	1034	1040	1051	1048	1078	1087	1128	1147	1130	1115	1137	1092	951	957	978	966	1038
24	891	945	998	1008	1020	1034	1028	1029	1045	1047	1041	1050	1080	1097	1145	1123	1128	1128	1116	1022	1013	1028	1008	963	1041
25	960	1003	1013	1028	1031	1028	1035	1032	1039	1039	1035	1034	1035	1048	1079	1110	1119	1097	1057	1045	1041	1044	1045	1040	1043
26	1016	930	938	929	969	991	1013	1020	1026	1031	1031	1036	1039	1054	1079	1110	1119	1091	1071	1048	1048	1055	936	938	1022
27	944	944	910	937	984	999	1007	1008	1026	1033	1038	1053	1087	1190	1126	1097	1067	1069	1091	1050	996	986	975	984	1025
28	1017	1029	1022	1021	1019	1025	1028	1025	1044	1044	1041	1039	1042	1041	1037	1036	1043	1034	1035	1036	1032	1032	1019	984	1030
29	994	1009	1018	1013	1012	1013	1019	1025	1031	1031	1031	1036	1052	1058	1052	1049	1049	1049	1046	1038	1037	1025	1001	1013	1029
30 *q*	1019	1019	1024	1021	1014	1001	1012	1020	1023	1022	1022	1027	1031	1036	1041	1034	1031	1034	1031	1028	1027	1027	1027	1019	1025
31	1019	1021	1018	994	966	978	979	988	995	1002	1015	1019	1035	1052	1061	1062	1055	1041	1038	1037	1042	1024	1024	1024	1020
Mean	992	987	993	989	992	988	995	1008	1023	1029	1034	1042	1049	1059	1064	1069	*1072*	1066	1053	1038	1022	1017	999	*979*	1023

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

48 LERWICK — OCTOBER

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination				Vertical force						
	Maximum 14,000γ +		Minimum 14,000γ +		Range	Maximum 11° +		Minimum 11° +		Range	Maximum 46,000γ +		Minimum 46,000γ +		Range				
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ				°A.
1 *d*	12 58	469	175	5 36	294	5 47	18·7	-18·6	4 40	37·3	13 52	1175	856	6 16	319	4,5,5,4,5,3,2,4	32	1	88·8
2	14 59	450	241	6 5	209	6 25	35·1	-15·3	21 10	50·4	15 3	1179	892	6 46	287	3,4,5,4,4,5,3,3	31	1	88·6
3	17 45	675	305	21 53	370	15 28	13·3	-30·1	21 40	43·4	17 38	1219	975	21 49	244	3,2,2,2,3,6,4,4	26	1	88·0
4	18 22	413	-108	23 12	521	23 47	14·7	-30·4	23 8	45·1	19 33	1086	746	23 7	340	2,1,3,1,2,2,4,7	22	1	88·0
5	16 20	388	266	0 11	122	0 1	7·6	-17·4	1 2	25·0	17 40	1045	839	0 9	206	5,3,2,2,2,2,2,1	19	1	84·8
6 *q*	18 54	387	328	11 41	59	14 10	3·8	-6·7	8 34	*10·5*	20 52	1035	996	2 50	39	2,2,0,1,1,1,2,1	10	0	84·0
7	23 50	417	357	8 59	60	13 9	4·5	-11·9	21 41	16·4	20 10	1053	947	23 9	106	1,1,0,1,2,2,3,4	14	1	84·0
8 *q*	23 9	322	311	12 38	*11*	14 30	7·3	-8·7	0 5	16·0	4 2	1025	969	0 1	56	3,2,1,2,2,0,1,2	13	0	85·9
9 *q*	17 10	399	332	12 28	67	13 51	3·2	-7·6	0 10	10·8	18 28	1030	1004	1 31	*26*	2,0,0,1,1,2,2,2	10	0	83·0
10	0 10	398	184	6 46	214	6 53	31·8	-8·0	1 37	39·8	20 55	1042	924	7 5	118	2,3,5,3,3,2,2,2	22	1	82·9
11	18 55	458	307	12 20	151	14 6	13·8	-14·9	19 40	28·7	18 54	1096	965	1 52	131	3,3,2,3,3,3,4,3	24	1	83·2
12	22 54	393	295	11 7	98	12 37	14·0	-10·8	23 52	24·8	16 43	1059	991	9 17	68	2,1,2,3,3,3,1,2	17	1	84·0
13	16 30	410	325	10 24	85	13 54	13·1	-8·1	0 1	21·2	17 55	1074	1004	4 22	70	2,2,2,2,2,3,3,2	18	1	84·8
14	15 19	422	-117	21 43	539	21 46	17·2	-35·6	23 59	52·8	16 16	1135	832	23 36	303	2,1,2,2,3,4,3,7	24	1	84·0
15 *d*	15 22	610	-240	1 6	850	19 55	26·8	-59·2	0 55	86·0	13 31	1202	699	1 5	503	7,5,4,4,5,6,6,3	40	1	83·4
16 *q*	17 32	378	315	11 10	63	12 48	4·5	-8·3	18 15	12·8	18 19	1068	986	3 45	82	1,2,1,0,2,2,3,0	11	0	83·3
17	22 32	450	-821	23 49	1271	23 19	39·4	*-105·5*	23 51	144·9	8 7	1043	*442*	23 38	601	1,0,2,1,1,1,2,9	17	2	81·4
18 *d*	18 18	624	*-907*	1 8	*1531*	23 20	*87·8*	-46·1	23 38	133·9	1 6	*1326*	608	23 5	*718*	9,6,4,3,3,4,6,8	43	2	81·2
19 *d*	15 38	517	-211	5 6	728	5 21	63·2	-83·5	3 6	*146·7*	15 39	1173	495	5 5	678	6,7,7,5,4,5,5,3	42	2	81·2
20	16 44	672	310	21 22	362	18 11	22·8	-26·6	17 58	49·4	16 43	1263	1000	0 2	263	2,2,2,1,3,6,6,3	25	1	83·0
21 *d*	17 42	*680*	107	20 14	573	18 21	55·4	-38·1	20 25	93·5	16 25	1247	787	5 25	460	4,6,5,5,4,6,6,4	40	2	83·4
22	13 35	517	104	21 7	413	13 35	24·3	-31·0	19 9	55·3	13 32	1135	777	21 9	358	1,2,3,4,6,3,6,6	31	1	84·1
23	16 11	586	184	20 45	402	20 51	14·2	-24·8	16 21	39·0	16 10	1228	856	20 32	372	4,2,3,3,4,5,6,4	31	1	84·1
24	14 41	461	268	0 16	193	13 40	8·9	-25·3	19 18	34·2	14 33	1196	873	0 13	323	4,3,3,2,5,4,5,4	30	1	84·0
25	17 2	421	330	0 9	91	13 6	8·4	-22·0	21 43	30·4	16 47	1132	929	0 1	203	4,1,2,2,3,4,3,4	23	1	83·0
26	15 34	403	287	22 18	116	22 5	4·7	-22·0	2 16	26·7	16 1	1140	877	22 39	263	4,4,2,2,3,3,3,5	26	1	82·4
27	13 24	543	233	1 43	310	13 0	14·1	-25·7	22 53	39·8	13 19	1230	900	2 30	330	4,4,2,2,5,3,5,4	29	1	81·9
28	22 46	426	338	3 22	88	11 50	4·6	-12·5	22 44	17·1	8 4	1047	979	23 46	68	2,2,2,2,2,2,2,3	17	0	80·9
29	6 4	383	335	11 59	48	13 36	6·8	-11·7	22 23	18·5	14 47	1059	988	0 1	71	2,2,2,1,2,2,2,3	16	0	79·4
30 *q*	23 20	391	344	11 58	47	13 40	3·2	-8·2	23 59	11·4	14 21	1043	999	5 28	44	2,2,2,1,2,1,0,2	12	0	80·0
31	5 28	436	336	3 16	100	3 21	8·0	-15·0	20 31	23·0	14 36	1064	956	3 59	108	2,3,2,2,2,2,3,3	19	1	81·0
Mean	- -	468	147	- -	322	- -	19·2	-25·5	- -	44·7	- -	1124	874	- -	250	-	-	0·90	83·6

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

49 LERWICK (H) — 14,000γ (0·14 C.G.S. unit) + — NOVEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	375	377	377	379	379	379	377	371	366	356	347	345	348	354	369	373	373	378	385	374	368	347	82	-12	340
2 *d*	60	245	338	366	355	310	272	287	301	319	334	379	393	388	428	488	560	488	495	430	366	232	248	266	348
3	282	273	103	285	343	363	363	365	359	345	335	330	342	347	358	380	381	413	460	423	399	379	378	360	349
4 *q*	359	366	366	364	365	369	373	371	364	354	345	343	341	344	353	364	373	377	379	380	379	378	377	374	365
5 *q*	373	372	373	376	380	380	382	379	368	348	347	346	350	352	358	362	375	380	379	379	378	374	378	378	369
6	377	374	375	379	380	384	386	385	378	367	356	354	357	363	373	378	383	387	389	391	387	390	391	396	378
7	387	380	376	379	381	385	386	383	382	377	367	367	354	360	375	379	380	383	386	385	386	388	394	378	379
8	374	368	386	371	375	377	378	376	371	375	375	371	370	373	383	391	380	396	388	388	394	371	382	381	379
9	376	380	372	378	378	381	376	384	378	367	364	360	359	363	376	375	375	388	378	382	381	388	389	378	376
10	378	374	374	369	374	378	380	380	376	367	359	356	357	361	369	374	378	383	384	387	388	385	388	386	375
11	378	377	377	374	377	379	381	376	366	355	355	354	357	365	372	377	380	384	385	390	388	388	387	384	375
12 *q*	382	381	380	381	386	389	393	390	381	372	361	358	362	364	359	371	379	383	386	388	387	386	384	385	379
13	384	382	381	380	380	379	377	374	371	361	354	351	356	369	380	392	366	375	381	390	402	394	383	377	377
14	388	382	380	382	385	387	386	384	376	361	355	357	357	362	371	376	384	381	383	386	390	394	388	383	378
15	380	383	387	384	389	386	383	379	378	371	361	359	358	365	375	373	379	389	393	391	368	385	400	359	378
16	350	348	349	354	372	376	362	375	372	362	353	344	344	358	371	379	379	380	383	380	381	378	379	382	367
17	376	368	362	357	359	367	394	382	373	347	337	355	368	365	400	392	382	364	375	359	337	361	367	371	367
18	368	367	347	369	368	361	375	361	369	365	358	348	357	364	394	395	378	370	360	365	362	365	347	357	365
19	371	371	371	358	334	376	367	367	357	347	354	355	356	363	375	368	369	384	381	377	355	362	365	374	365
20 *d*	373	363	364	355	362	371	376	347	363	348	348	334	374	403	584	360	618	513	486	481	254	273	237	203	379
21 *d*	213	253	171	193	285	354	315	326	343	346	344	353	346	349	353	363	362	367	370	368	353	360	364	361	*325*
22	348	346	366	370	372	372	370	357	339	340	340	350	346	350	363	368	377	379	378	367	365	371	369	353	361
23	343	331	314	351	373	366	367	372	365	361	352	349	350	350	365	365	366	375	378	374	387	375	370	379	362
24 *d*	368	357	362	362	365	377	382	373	356	352	343	347	362	370	370	383	406	406	401	389	316	306	314	318	362
25 *d*	360	362	363	358	356	357	362	371	354	347	339	324	355	363	378	432	376	380	381	383	366	372	371	370	366
26	376	369	371	371	373	374	374	372	364	335	336	344	371	384	367	373	371	376	376	378	378	375	373	374	369
27	373	375	379	379	382	379	377	369	369	370	360	337	346	362	370	376	370	375	378	378	377	375	375	375	371
28	379	379	379	378	389	397	390	385	363	342	348	366	367	370	377	383	386	384	379	386	383	379	378	374	377
29 *q*	377	376	374	372	365	375	386	384	383	383	379	370	368	374	378	384	388	386	383	386	386	388	384	380	380
30 *q*	380	383	382	380	383	385	386	387	386	384	382	376	375	378	383	383	387	390	394	395	390	389	387	384	*385*
Mean	354	359	353	362	369	374	373	370	366	357	353	353	358	364	381	382	*392*	391	392	388	372	367	358	*351*	368

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

50 LERWICK (D) — 11° + — NOVEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	-2·6	-2·7	-3·0	-2·9	-3·4	-3·5	-3·8	-4·7	-5·5	-4·6	-1·6	1·3	3·1	4·8	6·6	6·0	6·1	4·4	1·3	-5·6	-4·4	-5·0	-22·6	-41·8	-3·5
2 *d*	-11·0	-18·8	-16·9	-6·8	-3·0	1·2	3·6	0·1	0·8	3·4	1·9	0·3	4·2	8·0	7·4	6·0	10·6	14·0	12·7	-3·0	-5·1	-19·6	-21·1	-18·1	-2·1
3	-18·9	-22·4	-12·8	-16·7	-10·7	-9·2	-8·7	-9·2	-9·2	-7·2	-2·8	-1·4	2·9	4·2	5·6	5·9	8·8	12·2	11·8	1·3	-4·5	-4·6	-6·2	-10·2	-4·3
4 *q*	-8·3	-7·2	-3·7	-3·5	-3·4	-3·7	-3·7	-4·4	-5·7	-5·8	-4·4	-1·6	-0·4	0·9	1·4	0·8	0·4	-0·1	-1·0	-1·7	-2·5	-3·0	-3·4	-3·4	-2·8
5 *q*	-3·2	-2·9	-2·5	-2·6	-2·7	-3·0	-4·3	-4·5	-5·5	-4·3	-1·3	1·2	3·8	3·9	3·7	2·6	1·2	0·4	-0·9	-5·2	-6·2	-3·9	-3·8	-3·9	-1·8
6	-3·1	-3·1	-3·0	-3·0	-5·7	-5·8	-5·3	-5·2	-5·2	-3·9	-2·5	0·2	2·7	3·2	3·4	2·9	1·8	1·3	0·9	0·7	-0·5	-1·4	-1·6	-4·0	-1·5
7	-12·9	-7·9	-6·7	-4·6	-3·9	-3·7	-4·3	-4·7	-5·2	-4·4	-1·6	3·0	4·5	2·9	5·0	4·2	2·3	1·2	0·9	-0·2	-1·1	-3·8	-13·0	-13·5	-2·8
8	-13·1	-8·8	-11·0	-12·5	-6·3	-4·5	-4·1	-5·2	-5·3	-4·6	-0·8	3·0	0·4	2·5	3·2	4·4	2·8	6·0	4·3	0·4	-8·6	-6·3	-4·5	-6·8	-3·1
9	-12·5	-6·5	-5·4	-4·3	-4·3	-5·3	-2·5	-2·0	-2·6	-2·4	0·3	0·4	3·2	1·1	2·4	2·9	-4·0	-3·4	-0·1	0·0	-4·5	-2·9	-4·0	-5·4	-2·6
10	-4·4	-7·2	-7·2	-5·4	-3·9	-5·4	-3·7	-4·6	-4·6	-3·9	-0·8	-0·4	1·2	2·0	2·2	1·5	-0·6	-0·9	0·7	-0·6	-1·4	-2·2	-3·9	-4·5	-2·4
11	-10·7	-5·3	-3·7	-4·4	-4·4	-3·9	-3·7	-4·4	-5·5	-5·9	-3·5	0·3	1·0	1·3	1·3	1·4	0·6	0·8	0·7	-1·4	-2·7	-2·9	-3·4	-3·3	-2·6
12 *q*	-3·7	-2·8	-3·6	-2·5	-2·6	-3·0	-2·9	-3·4	-4·3	-4·4	-3·4	-0·9	1·2	2·4	0·0	-0·1	-0·5	-0·6	-1·3	-1·1	-2·0	-2·3	-2·5	-2·5	-1·9
13	-2·6	-3·1	-3·4	-3·5	-3·5	-3·9	-4·4	-4·6	-5·2	-5·1	-3·5	-2·0	-0·1	2·4	3·1	4·2	5·4	0·4	-2·6	-4·5	-13·8	-10·7	-8·1	-4·5	-3·1
14	-1·1	-3·6	-4·1	-3·7	-2·9	-3·7	-3·4	-4·4	-5·6	-5·3	-3·5	-0·8	0·8	2·1	1·6	0·6	0·4	-0·9	-0·6	-0·9	-3·7	-4·3	-2·6	-3·4	-2·2
15	-3·4	-3·5	-3·8	-4·2	-5·7	-5·0	-5·0	-4·6	-5·4	-4·4	-3·4	-1·1	0·6	2·7	2·7	1·7	0·8	1·1	3·9	-15·9	-3·4	-5·8	-17·1	-15·0	-3·9
16	-8·2	-4·0	-3·9	-2·6	-2·5	-1·3	-1·9	-4·1	-5·7	-6·1	-4·1	-2·0	0·4	2·6	3·2	3·7	2·4	1·8	3·2	-0·2	-1·7	-5·3	-5·7	-5·7	-2·0
17	-6·1	-6·8	-4·1	-3·5	0·7	0·8	0·9	3·9	0·8	-1·6	-1·6	3·1	2·6	3·1	1·8	1·8	-7·1	-2·5	2·7	-4·1	-14·5	-6·8	-5·1	-4·4	-1·9
18	-3·1	-3·2	-1·8	0·4	-3·0	3·7	-1·6	-0·4	-3·9	-3·6	-1·3	-0·9	1·9	-0·1	-0·6	-3·0	0·9	-1·8	-4·5	-2·0	-11·0	-7·2	-6·1	-7·7	-2·5
19	-4·9	-3·8	-4·4	-1·6	-0·7	1·7	7·2	2·0	-0·7	-1·6	-2·7	-0·2	0·1	1·2	2·8	-2·7	-2·8	-0·3	-3·2	-11·8	-8·1	-6·3	-6·5	-8·4	-2·3
20 *d*	-6·0	-8·1	-6·9	-2·7	-0·1	1·4	2·2	3·4	1·5	0·1	0·4	0·2	7·6	2·7	3·6	0·8	0·4	-3·7	-4·8	4·9	-3·8	-19·8	-22·7	-27·7	-3·2
21 *d*	-31·3	-14·7	-25·9	-15·9	-9·4	0·6	0·8	4·7	0·9	-3·4	-6·4	-3·3	-2·5	-2·0	-1·1	-2·2	-2·5	-2·9	-3·8	-5·5	-9·7	-7·6	-5·5	-3·8	*-6·3*
22	-2·5	-2·9	-5·6	-4·4	-4·1	-3·4	-3·4	-1·6	-1·3	-2·1	-4·6	0·9	2·2	-1·9	1·0	-1·5	-14·4	-7·6	-6·1	-12·7	-4·8	-4·0	-4·6	-11·4	-4·2
23	-11·5	-14·5	-9·1	-0·1	-8·3	-4·6	-3·4	-4·2	-5·9	-5·2	-3·1	-1·1	0·8	0·4	2·1	-2·0	-4·4	-0·4	-1·6	-4·9	-10·9	-7·8	-8·0	-6·7	-4·8
24 *d*	-9·6	-7·6	-3·4	-2·0	-3·4	-3·4	-4·4	-3·3	-3·8	-3·0	-4·1	-1·6	0·9	1·8	1·6	-1·5	-1·4	-10·9	-10·9	-6·2	-19·3	-16·2	-8·2	-14·2	-5·6
25 *d*	-10·5	-4·3	-4·4	-4·3	-3·4	-3·2	-3·9	-3·0	-4·9	-2·9	-1·5	-0·4	3·6	1·3	-0·3	-7·8	-0·2	-1·8	-2·7	-1·5	-16·8	-17·2	-8·4	-5·2	-4·3
26	-4·3	-2·6	-2·1	-2·0	-3·1	-3·3	-3·8	-3·8	-4·3	-4·8	-2·0	-0·1	4·1	4·2	3·7	3·6	1·0	-1·8	-3·0	-2·9	-3·9	-4·0	-4·0	-3·1	-1·8
27	-2·8	-2·7	-2·8	-2·7	-3·1	-3·5	-4·3	-3·3	-2·0	-2·1	-0·2	3·4	5·9	5·9	6·9	5·6	4·7	-1·5	-3·4	-3·5	-3·8	-3·8	-3·4	-3·1	*-0·8*
28	-2·7	-2·8	-3·1	0·4	-4·6	-5·0	-3·0	-2·5	-5·6	-3·1	2·8	0·7	1·5	0·9	0·4	-0·3	-0·5	-1·6	-4·4	-1·6	-1·4	-5·6	-7·1	-3·8	-2·2
29 *q*	-3·1	-4·4	-2·9	-1·9	-3·4	-4·4	-5·6	-4·0	-5·6	-4·2	-1·6	-0·5	-0·5	-0·4	-0·4	-0·3	0·7	0·3	-2·0	-2·4	-3·4	-2·3	-4·3	-6·4	-2·6
30 *q*	-7·1	-6·4	-5·4	-4·4	-5·1	-5·2	-4·7	-4·4	-4·4	-3·9	-2·5	-1·5	-0·9	-1·0	-0·6	-1·1	-1·6	-2·0	-1·8	-2·1	-1·5	-1·6	-2·4	-2·1	-4·1
Mean	-7·5	-6·5	-5·9	-4·3	-4·0	-3·1	-2·8	-2·9	-4·0	-3·7	-2·1	-0·1	1·9	2·1	*2·5*	1·3	0·4	0·0	-0·5	-3·1	-6·0	-6·5	-7·3	*-8·5*	-3·9

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

51 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — NOVEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	1026	1030	1030	1030	1030	1029	1028	1030	1030	1030	1031	1035	1042	1049	1048	1055	1074	1102	1133	1102	1054	1043	922	881	1036
2 *d*	720	785	860	932	956	959	957	976	1009	1035	1073	1093	1099	1078	1108	1174	1193	1171	1192	1167	1184	864	908	960	1015
3	970	982	947	936	994	1022	1030	1036	1036	1035	1035	1036	1042	1048	1055	1060	1073	1101	1185	1188	1143	1112	1093	1084	1052
4 *q*	1060	1048	1044	1042	1042	1040	1037	1036	1040	1041	1041	1036	1036	1035	1037	1040	1040	1040	1042	1040	1037	1036	1034	1034	1040
5 *q*	1033	1034	1034	1035	1034	1034	1034	1035	1037	1040	1035	1035	1035	1035	1035	1039	1039	1040	1043	1049	1046	1042	1036	1031	1037
6	1030	1030	1029	1024	1023	1024	1025	1028	1031	1031	1032	1029	1029	1029	1028	1026	1026	1027	1029	1030	1033	1033	1030	962	1026
7	977	1006	1018	1021	1023	1023	1023	1022	1024	1023	1023	1023	1026	1024	1022	1025	1028	1028	1029	1032	1036	1048	1034	1013	1023
8	1013	1017	986	995	1011	1017	1019	1023	1025	1023	1018	1020	1024	1021	1024	1030	1037	1036	1052	1065	1049	1042	1047	1041	1026
9	1054	1023	1022	1022	1021	1017	1022	1022	1022	1028	1025	1028	1029	1031	1029	1034	1046	1038	1045	1044	1051	1035	1029	1028	1031
10	1027	1026	1020	1017	1022	1025	1028	1031	1034	1035	1035	1034	1032	1029	1029	1029	1029	1029	1028	1028	1029	1031	1029	1022	1028
11	1017	1017	1025	1029	1029	1029	1026	1029	1030	1033	1032	1029	1029	1028	1024	1026	1026	1025	1025	1025	1025	1026	1028	1028	1027
12 *q*	1028	1026	1026	1024	1023	1021	1017	1022	1023	1028	1029	1029	1028	1030	1036	1033	1028	1028	1025	1024	1025	1025	1026	1026	1026
13	1027	1028	1028	1027	1026	1024	1024	1027	1028	1032	1033	1033	1032	1031	1031	1035	1051	1049	1041	1032	1017	1000	1000	1016	1028
14	1008	1010	1024	1028	1027	1027	1026	1027	1028	1034	1034	1032	1030	1029	1032	1031	1028	1033	1031	1029	1031	1022	1020	1027	1027
15	1029	1030	1022	1025	1022	1023	1023	1023	1022	1027	1030	1030	1032	1030	1033	1038	1035	1030	1046	1087	1091	1063	1035	999	1034
16	1013	1000	956	981	999	1013	1024	1031	1039	1039	1040	1038	1034	1033	1031	1031	1034	1041	1039	1045	1041	1037	1031	1018	1025
17	1022	1016	993	962	973	981	979	999	1013	1024	1033	1045	1069	1092	1099	1087	1105	1087	1087	1099	1026	1016	1026	1025	1036
18	1022	1001	999	978	998	985	1004	1016	1023	1027	1029	1036	1044	1063	1110	1099	1085	1077	1083	1068	1053	1029	1006	1001	1035
19	1018	1027	1026	985	918	950	974	991	1010	1028	1034	1033	1034	1035	1046	1075	1091	1071	1068	1074	1050	1051	1033	1016	1027
20 *d*	977	986	1003	998	987	986	984	1006	1015	1026	1037	1067	1102	1127	1133	1173	1095	1054	1090	1117	1077	1033	975	942	1041
21 *d*	860	907	840	849	872	952	997	1011	1026	1039	1049	1053	1057	1059	1052	1050	1049	1047	1045	1051	1062	1051	1042	1033	*1002*
22	983	959	1009	1023	1027	1030	1031	1037	1038	1047	1051	1045	1058	1067	1054	1067	1097	1088	1080	1062	1045	1040	1027	974	1039
23	967	968	955	974	1008	1021	1021	1033	1041	1040	1039	1039	1042	1046	1051	1057	1065	1046	1040	1049	1041	1028	1027	996	1025
24 *d*	998	1004	1009	1009	1014	1019	1026	1031	1042	1040	1044	1041	1035	1039	1051	1049	1065	1122	1098	1111	991	943	992	947	1030
25 *d*	1029	1039	1039	1040	1028	1033	1033	1029	1044	1052	1057	1058	1056	1085	1112	1119	1095	1045	1036	1040	1069	1050	1039	1041	*1053*
26	1033	1033	1033	1036	1033	1033	1033	1034	1040	1055	1067	1074	1101	1104	1076	1058	1052	1051	1047	1043	1041	1040	1042	1039	1050
27	1039	1037	1034	1033	1031	1030	1028	1030	1030	1033	1038	1046	1045	1048	1060	1064	1068	1051	1044	1039	1039	1039	1039	1039	1041
28	1037	1037	1033	1028	1020	1017	1015	1017	1029	1039	1033	1027	1034	1037	1038	1039	1039	1039	1045	1038	1039	1047	1045	1039	1034
29 *q*	1034	1033	1028	1020	1015	1011	1012	1016	1023	1021	1021	1026	1027	1027	1030	1032	1033	1032	1033	1030	1029	1026	1026	1028	1026
30 *q*	1028	1026	1025	1026	1025	1024	1020	1019	1018	1019	1016	1019	1021	1025	1027	1031	1028	1027	1023	1023	1025	1028	1027	1030	1024
Mean	*1003*	1005	1003	1004	1008	1013	1017	1022	1028	1033	1037	1039	1040	1047	1051	1057	1059	1055	1060	*1061*	1049	1029	1022	1011	1031

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

52 LERWICK — NOVEMBER

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination			Vertical force							
	Maximum 14,000γ +		Minimum 14,000γ +		Range	Maximum 11° +		Minimum 11° +		Range	Maximum 46,000γ +		Minimum 46,000γ +		Range				
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ				°A.
1	18 40	402	-135	23 18	537	17 14	8·2	-69·0	23 55	77·2	18 23	1140	810	23 40	330	0,0,1,1,2,3,4,7	18	1	82·5
2 *d*	16 20	695	*-243*	0 10	*938*	18 11	30·9	-68·1	21 1	*99·0*	16 11	1233	*671*	0 12	562	7,4,4,4,4,6,7,6	42	2	81·4
3	18 43	493	-6	2 37	499	18 8	19·3	-32·1	2 56	51·4	18 36	1219	868	3 14	351	6,5,4,2,2,4,4,3	30	1	80·8
4 *q*	19 51	382	338	12 48	44	14 28	2·1	-11·3	0 57	13·4	0 4	1066	1033	23 38	33	2,1,1,1,1,1,0,0	7	0	83·1
5 *q*	20 0	385	342	11 40	43	13 16	4·4	-9·2	20 24	13·6	19 25	1054	1030	23 20	24	0,0,1,1,0,2,2,1	7	0	84·2
6	23 9	414	352	11 42	62	23 10	6·0	-16·8	23 59	22·8	22 58	1037	940	23 55	97	0,2,1,1,1,0,1,4	10	1	84·1
7	22 25	410	349	12 23	61	12 50	8·3	-17·4	22 19	25·7	22 16	1054	941	0 1	113	4,1,1,3,2,1,1,3	16	1	84·1
8	20 28	414	360	21 45	54	17 45	8·2	-18·6	20 8	26·8	20 1	1095	975	2 45	120	3,3,1,2,2,2,4,2	19	1	82·2
9	0 59	406	349	13 0	57	12 44	5·4	-18·3	0 45	23·7	0 16	1070	1014	5 12	56	3,2,2,1,2,3,2,2	17	1	82·0
10	23 2	398	353	11 11	45	14 17	3·1	-9·4	2 58	12·5	5 58	1036	1011	2 56	25	2,2,1,1,1,1,1,2	11	0	82·0
11	19 38	394	351	10 17	43	17 55	2·3	-13·2	0 35	15·5	9 28	1035	1010	1 39	25	3,1,1,2,1,1,1,0	10	0	82·1
12 *q*	6 34	396	355	14 19	41	13 10	2·9	-5·3	8 23	*8·2*	14 48	1039	1017	6 40	22	1,1,1,1,1,1,0,0	6	0	82·2
13	20 31	412	349	10 55	63	16 16	8·2	-18·7	20 13	26·9	16 52	1058	988	21 42	70	0,0,0,1,2,3,3,3	12	1	83·0
14	21 55	401	351	12 16	50	12 59	3·3	-6·7	8 23	10·0	17 35	1035	1000	0 50	35	2,1,1,1,1,1,1,2	10	0	83·1
15	21 58	416	340	23 56	76	18 27	6·5	-25·6	19 43	32·1	19 18	1111	993	23 35	118	2,1,1,1,1,2,4,4	16	1	85·0
16	16 50	393	322	1 54	71	16 2	4·3	-11·0	0 1	15·3	19 45	1047	941	2 21	106	4,3,3,2,2,2,2,2	20	1	85·2
17	20 3	412	295	20 18	117	18 35	10·9	-24·8	20 43	35·7	20 3	1026	953	3 39	173	3,2,3,4,3,3,5,3	26	1	84·5
18	14 58	443	334	23 5	109	14 24	7·3	-15·1	14 58	22·4	14 50	1150	969	3 42	181	3,3,2,2,4,4,3,3	24	1	84·4
19	18 49	393	306	4 16	87	6 28	9·8	-21·2	19 34	31·0	16 33	1099	909	4 36	190	2,4,3,2,2,3,4,3	23	1	84·1
20 *d*	16 46	*900*	-16	20 30	916	17 21	*39·8*	-44·7	23 59	84·5	20 5	*1409*	790	20 27	*619*	3,3,3,3,7,7,8,6	40	2	84·1
21 *d*	18 31	375	57	0 7	318	7 14	11·9	*-73·1*	0 5	85·0	20 33	1068	733	0 13	335	6,6,3,3,2,2,2,2	26	1	84·6
22	16 49	391	317	12 57	74	11 52	7·0	-22·4	19 28	29·4	16 32	1110	927	1 5	183	4,1,3,3,3,4,4,4	26	1	84·0
23	22 59	410	294	2 20	116	3 24	5·2	-19·1	0 53	24·3	16 8	1070	949	2 20	121	3,3,2,2,2,2,3,3	20	1	83·4
24 *d*	20 0	554	187	20 54	367	20 54	11·0	-32·1	20 6	43·1	19 57	1170	856	20 54	314	3,2,2,2,2,2,4,6,5	26	1	83·0
25 *d*	15 53	481	302	11 23	179	12 10	7·3	-31·1	20 32	38·4	15 51	1155	1004	0 1	151	3,2,2,3,3,4,4,4	25	1	83·6
26	13 12	401	325	9 38	76	12 46	11·8	-8·0	0 13	19·8	12 45	1147	1030	0 27	117	2,0,1,3,4,2,1,1	14	1	83·8
27	6 38	391	328	11 37	63	14 8	8·7	-5·6	6 42	14·3	16 22	1077	1021	6 39	56	1,2,2,2,3,3,1,1	15	1	83·8
28	5 39	401	332	9 56	69	10 20	5·3	-11·9	21 49	17·2	21 58	1057	1015	5 40	42	1,2,2,3,1,1,2,3	15	1	84·1
29 *q*	21 50	399	361	5 0	38	17 8	1·2	-7·2	23 36	8·4	0 25	1038	1007	5 55	31	1,2,1,1,0,1,1,2	9	0	83·3
30 *q*	20 6	401	373	11 56	*28*	20 30	0·4	-8·1	0 35	8·5	15 30	1032	1015	10 45	*17*	1,0,1,0,1,1,1,1	6	0	82·0
Mean	- -	439	264	- -	175	- -	8·7	-22·5	- -	31·2	- -	1101	947	- -	154	-	-	0·80	83·3

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

53 LERWICK (H) — 14,000γ (0·14 C.G.S. unit) + — DECEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *q*	385	385	385	387	390	390	390	388	384	382	380	377	376	383	389	396	399	401	402	402	402	401	399	398	390
2	396	391	385	388	390	393	398	393	389	384	379	377	381	385	383	383	386	390	389	387	382	361	362	368	384
3 *q*	381	383	382	383	387	383	383	384	386	376	375	376	379	381	379	383	388	390	393	394	393	392	386	388	384
4	388	388	388	390	393	394	394	394	388	376	370	373	378	381	384	386	389	389	385	374	368	374	377	366	383
5 *q*	381	385	383	387	391	395	396	394	388	375	377	378	378	377	377	382	386	391	392	390	386	378	380	381	385
6 *d*	388	384	385	387	393	410	395	398	395	395	388	390	384	388	405	399	485	456	438	451	389	376	368	367	401
7	354	305	334	371	360	376	379	382	378	368	364	363	352	377	383	378	379	384	389	375	377	370	377	380	369
8	372	374	379	378	381	385	385	384	373	376	377	376	377	382	383	387	389	389	390	391	390	391	433	374	384
9	385	387	384	383	388	390	388	386	378	374	377	376	377	381	387	390	392	390	383	390	390	395	391	388	385
10	385	386	388	390	393	392	393	395	388	381	376	377	381	385	387	394	387	384	388	381	389	377	382	386	386
11	349	370	377	384	388	391	392	391	388	377	350	356	373	373	379	389	389	393	382	385	386	385	381	382	380
12 *q*	385	385	382	383	386	387	388	387	383	378	373	370	374	380	385	388	389	390	392	392	393	394	394	394	385
13	394	394	397	396	394	394	392	394	394	388	386	385	386	395	405	398	392	398	430	399	395	311	324	329	386
14	337	333	352	306	348	379	387	387	382	337	344	353	359	372	381	378	378	400	407	376	370	376	373	384	367
15	369	376	376	379	384	390	394	389	385	371	364	364	365	367	359	378	380	385	387	386	385	385	386	389	379
16	344	363	373	373	384	393	389	388	386	374	366	365	366	361	368	371	375	410	400	371	380	378	373	374	376
17	373	360	374	383	374	378	379	381	380	374	365	361	364	369	375	380	384	384	386	387	386	386	386	390	377
18	389	383	378	378	386	393	395	391	386	371	364	365	361	360	360	371	383	389	390	389	388	387	388	388	381
19	387	400	391	389	390	383	395	394	382	375	357	356	362	368	377	375	376	386	389	389	384	384	386	387	382
20	387	387	387	388	391	390	391	389	387	388	385	357	367	364	371	374	378	384	389	387	383	388	387	392	383
21 *d*	393	387	386	384	395	400	397	375	354	337	347	351	375	377	380	388	486	416	378	382	361	354	361	367	380
22	366	367	371	372	375	374	376	376	356	350	362	359	353	356	363	372	377	381	381	379	378	377	380	384	370
23	377	381	382	384	385	386	386	388	382	372	363	360	356	360	370	379	386	383	384	386	391	370	366	350	376
24	370	374	372	373	345	319	348	380	382	378	368	365	368	371	378	383	391	396	401	392	392	383	378	383	375
25 *d*	378	373	377	376	380	383	385	385	389	391	388	386	394	392	414	416	688	548	579	479	469	361	326	320	*416*
26	331	349	303	355	369	368	373	368	362	362	359	356	359	364	367	369	372	374	368	361	351	362	365	369	*360*
27	372	374	373	371	385	390	388	383	375	373	366	361	373	379	382	381	379	378	363	365	375	377	380	382	376
28 *q*	380	369	376	381	385	383	382	381	380	373	372	373	373	374	376	383	390	387	384	379	378	381	385	387	380
29	391	392	387	387	394	398	400	398	387	374	370	365	370	376	382	378	377	385	376	371	370	372	377	382	382
30 *d*	380	380	382	384	388	391	395	389	386	382	376	372	373	382	395	396	391	466	480	417	393	336	151	284	378
31 *d*	310	375	372	376	380	383	390	393	381	334	338	353	365	372	385	397	482	375	373	370	372	369	370	373	375
Mean	373	375	376	379	383	386	388	387	382	373	369	*368*	371	375	381	385	*404*	399	399	390	385	375	370	374	381

374 at 0-1h. January 1, 1949.

MAGNETIC DECLINATION (WEST)
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

54 LERWICK (D) — 11° + — DECEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 *q*	-2·7	-3·4	-2·6	-2·4	-2·6	-3·3	-3·5	-3·1	-3·6	-3·6	-1·5	-0·8	-0·5	0·3	0·3	0·2	-0·1	-0·3	-0·8	-1·6	-1·8	-1·7	-2·6	-2·6	-1·8
2	-2·7	-4·7	-4·4	-4·2	-3·2	-2·9	-3·5	-3·5	-3·9	-3·5	-1·8	-1·1	-0·1	-0·2	-1·1	-1·2	-1·7	-2·2	-1·7	-2·4	-4·5	-12·9	-10·3	-10·1	-3·7
3 *q*	-4·5	-2·8	-2·1	-0·3	-5·4	-5·5	-5·7	-2·5	-1·9	-2·4	-1·5	0·2	-0·6	0·3	0·3	0·6	-0·8	-1·7	-2·1	-2·7	-3·4	-3·7	-3·5	-3·1	-2·3
4	-3·2	-3·5	-3·2	-2·9	-3·3	-3·5	-3·5	-3·5	-4·1	-3·3	-2·9	-1·8	-0·8	-0·7	-0·9	-1·6	-1·7	-0·5	-0·3	-3·8	-8·3	-6·1	-6·6	-9·7	-3·3
5 *q*	-10·5	-4·9	-4·0	-4·5	-4·1	-3·4	-3·2	-2·8	-2·4	-1·7	-0·8	0·0	0·5	1·1	0·8	0·2	-0·1	-0·8	-1·5	-1·9	-3·2	-9·3	-8·0	-6·3	-2·9
6 *d*	-8·1	-6·3	-3·0	-2·5	-5·4	-6·4	-7·5	-4·4	-4·0	-2·8	-1·7	-0·4	0·7	1·6	5·1	8·0	15·0	0·7	5·5	-13·6	-16·9	-12·1	-10·7	-4·4	-3·1
7	-4·6	-6·6	-9·4	-7·3	-6·4	-4·5	-4·6	-2·6	-3·5	-4·4	-2·8	-1·2	2·2	3·7	2·2	4·0	0·1	-6·5	-1·8	-8·0	-21·4	-7·6	-8·5	-9·7	*-4·5*
8	-11·3	-6·5	-3·8	-5·2	-4·6	-4·5	-5·1	-4·4	-4·4	-4·9	-2·5	-0·9	0·3	0·3	0·2	0·1	0·3	-0·4	-1·7	-2·0	-5·7	-5·5	-11·6	-9·9	-3·9
9	-5·5	-4·4	-5·8	-2·3	-4·9	-5·7	-5·5	-5·5	-3·9	-1·0	-1·2	-0·6	-0·6	-0·5	-0·2	-1·0	-1·3	0·2	-1·3	-1·7	-3·0	-4·9	-4·4	-3·6	-2·9
10	-3·7	-3·7	-4·0	-5·5	-5·4	-4·9	-4·2	-3·8	-4·0	-3·8	-2·5	-1·6	0·1	1·1	-0·1	0·3	-0·1	1·9	2·9	-0·7	-13·8	-5·5	-4·0	-7·1	-3·0
11	-8·1	-2·5	-7·3	-5·0	-4·4	-3·5	-3·5	-3·5	-3·1	-4·4	-1·7	1·4	1·1	1·4	-0·6	-0·9	-1·4	-10·0	-0·8	-3·4	-5·4	-11·1	-8·8	-4·5	-3·7
12 *q*	-2·9	-3·4	-2·7	-2·6	-3·2	-3·5	-2·7	-2·9	-3·9	-4·0	-2·6	0·0	-0·3	0·3	-0·1	-1·1	-1·7	-1·7	-2·0	-2·7	-3·1	-3·3	-2·8	-2·5	-2·3
13	-2·5	-2·5	-2·4	-2·6	-2·6	-3·0	-3·1	-3·5	-3·6	-3·5	-2·8	-1·1	0·3	1·4	2·1	0·8	6·9	6·7	7·9	-5·1	-7·0	-1·6	-14·9	-16·8	-2·2
14	-10·8	-14·9	-10·6	-9·9	-14·9	-13·0	-0·7	-3·6	-2·7	-2·0	-0·2	0·9	2·7	4·2	6·0	4·1	2·4	4·1	-2·8	-14·2	-4·8	-5·3	-5·4	-11·3	-4·3
15	-5·5	-2·8	-2·6	-2·6	-3·0	-2·9	-2·6	-2·7	-3·1	-5·1	-4·6	-2·9	-1·1	0·1	-0·8	-0·3	-0·5	-1·1	-1·8	-2·1	-3·3	-3·9	-10·4	-19·6	-3·5
16	-10·0	-11·2	-9·8	-7·8	-3·3	-3·6	-3·7	-4·4	-3·5	-6·5	-5·9	-3·5	-1·6	1·6	-0·8	0·5	3·3	3·5	-3·4	-3·6	-3·2	-4·5	-7·5	-13·1	-4·3
17	-7·3	-7·8	-12·3	-6·4	-3·2	-2·7	-3·2	-3·9	-4·5	-5·3	-4·4	-3·2	-1·7	-0·3	0·0	-0·8	-1·7	-2·6	-3·0	-2·9	-5·4	-4·2	-3·5	-4·4	-3·9
18	-6·2	-6·5	-4·5	-1·8	-2·5	-2·5	-2·8	-3·6	-4·2	-5·5	-4·0	-1·7	0·3	2·0	0·3	0·3	-1·8	-2·4	-2·9	-3·0	-3·4	-4·5	-4·1	-3·5	-2·9
19	-3·1	-3·9	-5·0	-3·7	-2·2	-2·5	-1·7	-2·1	-4·4	-3·1	-3·1	0·1	1·7	3·2	2·3	0·2	-0·7	-2·6	-3·1	-3·2	-4·1	-4·4	-3·6	-4·2	-2·2
20	-3·7	-3·4	-3·0	-2·9	-3·4	-3·3	-3·7	-3·9	-4·5	-4·3	-2·8	-0·4	2·1	1·3	1·7	-0·6	-2·0	-1·9	-2·7	-3·7	-5·4	-4·8	-4·4	-4·8	-2·7
21 *d*	-9·7	-3·7	-3·2	1·3	-3·4	-4·6	1·5	3·7	-3·5	-3·0	-3·7	-3·5	0·2	3·0	6·0	5·4	10·2	3·0	-0·1	-5·8	-10·2	-13·8	-8·9	-5·3	-2·0
22	-3·5	-0·9	-0·9	-2·1	-3·0	-4·1	-4·5	-2·7	-5·5	-3·2	-3·0	-1·7	0·6	1·3	0·5	-0·7	-1·9	-5·8	-2·6	-3·2	-4·6	-5·2	-6·8	-10·2	-3·1
23	-7·2	-4·4	-3·8	-4·3	-4·2	-4·3	-4·4	-4·0	-4·6	-4·1	-3·2	-1·7	-0·4	1·2	-0·2	-1·5	-0·4	-0·8	-1·2	-1·2	-6·1	-7·8	-9·8	-9·8	-3·7
24	-9·3	-4·9	-1·7	-7·3	-0·6	7·8	6·7	-2·4	-6·2	-6·2	-4·6	-2·8	-0·7	0·8	0·9	0·4	0·3	1·1	3·5	0·7	-0·7	-4·6	-4·5	-3·5	*-1·6*
25 *d*	-3·9	-4·4	-6·2	-6·2	-7·1	-6·8	-4·7	-4·8	-4·9	-3·4	1·4	-0·2	2·8	3·4	8·2	4·9	4·7	5·5	15·8	3·4	-4·7	-15·2	-13·2	-12·9	-2·0
26	-19·9	-5·4	7·3	-4·6	-3·0	-1·1	-2·2	-3·6	-5·1	-5·6	-4·6	-3·1	-2·3	-2·2	-1·6	-2·6	-3·4	-3·6	-6·7	-3·1	-4·8	-5·9	-7·7	-6·0	-4·2
27	-4·1	-3·1	-4·1	-3·9	-2·9	-7·1	-3·9	-0·4	0·2	-0·5	-2·0	-3·2	-0·8	0·7	0·9	-0·5	-2·4	-3·4	-8·8	-3·1	-5·1	-7·6	-5·7	-5·1	-3·2
28 *q*	-3·5	-4·4	-7·0	-4·8	-4·1	-3·1	-3·0	-3·1	-3·8	-4·6	-3·6	-1·8	0·2	0·5	-1·0	-2·4	-2·4	-2·3	-3·1	-3·3	-6·0	-8·2	-5·1	-4·7	-3·5
29	-4·3	-5·3	-5·2	-5·1	-5·1	-3·9	-2·8	-2·7	-3·3	-3·0	-2·3	-0·5	1·5	2·6	4·6	5·0	-0·5	-1·3	-1·4	-3·9	-7·4	-11·6	-5·4	-4·6	-2·7
30 *d*	-4·0	-2·9	-2·8	-1·8	-3·5	-4·9	-4·6	-4·6	-4·6	-4·0	-1·6	0·7	0·8	1·8	4·0	2·5	2·4	13·9	3·1	-1·5	-8·0	-10·0	-12·5	-14·3	-2·3
31 *d*	-10·9	-8·4	-3·5	-2·5	-1·9	-2·5	-2·2	-2·2	-2·6	-3·6	-0·4	0·0	-0·5	0·7	-1·2	5·0	1·5	-3·3	-2·1	-3·9	-4·2	-4·9	-5·4	-6·9	-2·7
Mean	-6·4	-4·9	-4·3	-4·0	-4·1	-3·9	-3·2	-3·1	-3·8	-3·7	-2·5	-1·2	0·2	1·2	*1·2*	0·9	0·7	-0·5	-0·7	-3·5	-6·1	-6·8	-7·1	-7·6	-3·0

-4·1 at 0-1h. January 1, 1949.

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

55 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — DECEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *q*	1031	1032	1031	1029	1026	1026	1024	1022	1023	1023	1022	1023	1020	1020	1028	1022	1022	1025	1024	1023	1023	1023	1023	1023	1025
2	1023	1023	1028	1028	1025	1023	1019	1020	1020	1019	1022	1023	1023	1025	1028	1032	1030	1029	1028	1027	1023	1023	1017	1014	1024
3 *q*	1022	1022	1020	1013	1004	1013	1016	1013	1008	1012	1017	1024	1028	1029	1031	1033	1031	1029	1028	1027	1026	1025	1028	1025	1022
4	1023	1024	1025	1024	1024	1023	1023	1022	1024	1021	1022	1022	1022	1023	1025	1028	1028	1033	1035	1043	1045	1033	1028	1019	1027
5 *q*	1010	1009	1010	1007	1011	1015	1016	1016	1019	1018	1016	1016	1019	1022	1025	1026	1025	1025	1027	1028	1034	1039	1025	1001	1019
6 *d*	998	1003	1007	1006	998	984	996	1003	1004	1006	1010	1010	1015	1015	1015	1028	1114	1171	1131	1132	1006	965	979	1024	1026
7	1028	955	961	1002	996	986	1005	1015	1021	1026	1027	1027	1038	1045	1037	1045	1057	1051	1039	1058	1044	1029	1027	1027	1023
8	1033	1034	1032	1029	1027	1024	1021	1021	1024	1025	1026	1025	1023	1021	1023	1023	1021	1021	1023	1027	1032	1028	987	998	1023
9	1019	1024	1019	1015	1014	1014	1013	1014	1019	1020	1017	1025	1023	1020	1020	1021	1020	1025	1033	1032	1029	1023	1020	1021	1021
10	1021	1021	1020	1019	1013	1015	1013	1013	1019	1021	1020	1020	1019	1015	1018	1018	1028	1034	1043	1050	1040	1024	1022	1011	1022
11	995	918	959	1003	1012	1018	1018	1018	1020	1022	1025	1019	1023	1028	1037	1035	1042	1053	1042	1039	1031	1005	1017	1022	1017
12 *q*	1024	1024	1024	1023	1019	1018	1018	1018	1024	1025	1029	1026	1027	1025	1025	1024	1023	1019	1018	1019	1018	1018	1018	1019	1022
13	1019	1019	1017	1017	1016	1016	1014	1014	1016	1017	1020	1023	1024	1023	1025	1035	1078	1135	1171	1156	1094	982	1004	979	1038
14	993	976	1004	945	867	899	945	994	1011	1035	1030	1039	1047	1051	1053	1062	1072	1104	1128	1101	1053	1045	1042	1017	1021
15	1008	1020	1028	1028	1026	1025	1021	1024	1026	1033	1035	1037	1037	1038	1053	1050	1042	1035	1034	1032	1030	1031	1021	998	1030
16	993	989	991	1006	1015	1016	1022	1025	1022	1028	1032	1034	1033	1039	1052	1063	1086	1118	1107	1077	1041	1032	1026	995	1035
17	1000	1000	961	969	991	1010	1021	1022	1025	1028	1028	1028	1026	1025	1028	1028	1029	1028	1027	1026	1028	1026	1021	1010	1016
18	994	997	1009	1014	1015	1015	1019	1021	1026	1029	1033	1035	1036	1037	1050	1049	1039	1034	1032	1031	1028	1029	1026	1023	1026
19	1021	1009	1009	1012	1009	1012	1009	1014	1024	1025	1027	1027	1027	1032	1037	1044	1045	1039	1034	1031	1030	1027	1021	1020	1024
20	1020	1020	1020	1021	1021	1024	1024	1024	1024	1020	1016	1025	1021	1024	1030	1039	1039	1036	1033	1033	1037	1031	1026	1012	1026
21 *d*	1002	1009	1014	1009	1003	1009	1009	1009	1026	1027	1028	1043	1031	1023	1050	1131	1188	1182	1145	1115	1079	1039	1021	1020	1051
22	1014	1011	1014	1020	1027	1031	1031	1027	1037	1043	1039	1037	1039	1041	1039	1039	1040	1040	1037	1038	1039	1038	1031	1017	1032
23	1015	1016	1021	1022	1023	1025	1026	1025	1029	1030	1031	1028	1029	1027	1028	1029	1028	1028	1032	1035	1029	1038	1023	1001	1026
24	1001	1010	997	984	936	920	942	983	1018	1028	1031	1031	1025	1024	1024	1024	1024	1026	1028	1039	1045	1057	1056	1044	*1012*
25 *d*	1038	1036	1031	1025	1026	1024	1022	1021	1020	1020	1013	1018	1021	1023	1036	1085	1100	1177	1183	1170	1102	1059	999	1002	*1052*
26	957	955	950	972	1001	1016	1019	1026	1035	1040	1041	1040	1040	1039	1038	1038	1035	1035	1050	1063	1056	1055	1046	1037	1024
27	1034	1034	1034	1026	999	984	994	1003	1012	1019	1028	1033	1028	1031	1039	1040	1038	1040	1059	1053	1043	1037	1024	1017	1027
28 *q*	1021	1021	1017	1017	1014	1011	1008	1008	1014	1028	1028	1029	1029	1031	1038	1035	1029	1029	1032	1039	1040	1035	1029	1023	1025
29	999	997	1012	1019	1020	1017	1013	1014	1019	1024	1028	1030	1030	1038	1046	1053	1048	1041	1056	1058	1052	1041	1029	1023	1029
30 *d*	1021	1019	1022	1020	1020	1022	1019	1019	1019	1018	1022	1023	1027	1029	1034	1044	1118	1148	1203	1127	1062	1032	871	961	1037
31 *d*	952	980	1018	1030	1030	1030	1028	1025	1030	1042	1056	1047	1046	1052	1072	1148	1208	1107	1059	1046	1038	1036	1033	1025	1047
Mean	1011	*1007*	1010	1011	1007	1009	1012	1016	1021	1025	1026	1028	1028	1029	1035	1044	1056	1061	*1062*	1057	1041	1029	1017	1014	1027

1025 at 0-1h. January 1, 1949.

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

56 LERWICK — DECEMBER

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination				Vertical force						
	Maximum 14,000γ +		Minimum 14,000γ +		Range	Maximum 11° +		Minimum 11° +		Range	Maximum 46,000γ +		Minimum 46,000γ +		Range				
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ				°A.
1 *q*	18 45	405	373	11 48	32	13 42	0·9	-4·3	9 28	*5·2*	1 51	1032	1020	10 40	*12*	0,0,0,1,1,0,0,0	2	0	81·4
2	6 24	401	355	22 43	46	13 12	1·3	-16·9	21 28	18·2	15 10	1032	1006	23 11	26	1,1,1,1,1,0,2,3	10	1	81·4
3 *q*	21 36	397	371	10 7	*26*	13 35	2·0	-7·5	4 44	9·5	15 25	1034	1000	4 30	34	2,2,2,2,1,0,0,1	10	0	81·4
4	18 42	398	358	23 35	40	18 53	2·3	-14·8	23 43	17·1	20 5	1051	1015	22 59	36	0,0,0,1,0,1,3,3	8	1	81·3
5 *q*	6 7	399	371	21 44	28	13 9	1·9	-13·7	0 27	15·6	21 10	1046	991	23 50	55	3,1,1,1,1,1,2,3	13	1	80·6
6 *d*	16 51	669	326	21 50	343	16 54	32·5	-30·6	20 29	63·1	16 50	1232	916	21 46	316	2,3,2,2,2,6,5,5	27	1	80·2
7	20 27	413	276	1 50	137	13 22	5·3	*-34·4*	20 16	39·7	19 55	1075	918	1 50	157	4,3,2,2,3,3,5,2	24	1	79·9
8	22 17	462	363	23 32	99	13 46	2·1	-19·4	22 11	21·5	0 52	1038	976	22 37	62	3,1,1,2,1,1,2,4	15	1	79·8
9	21 20	400	365	12 0	35	11 42	1·8	-7·6	2 16	9·4	19 0	1037	1011	5 0	26	2,2,1,2,1,1,1,1	11	0	79·1
10	20 41	412	367	20 4	45	17 40	4·9	-24·4	20 30	29·3	19 29	1056	996	23 42	60	1,1,1,1,1,2,4,3	14	1	79·0
11	21 9	416	317	0 43	99	11 44	5·1	-20·3	17 12	25·4	17 10	1075	893	1 26	182	4,2,1,2,2,4,2,3	20	1	79·1
12 *q*	21 27	395	367	11 51	28	11 20	1·1	-5·0	9 6	6·1	12 3	1029	1017	6 8	*12*	0,0,0,1,1,0,0,0	2	0	79·8
13	18 28	457	279	21 20	178	18 42	16·0	-20·9	23 10	36·9	18 54	1221	945	21 11	276	0,1,1,1,2,4,5,5	19	1	79·9
14	18 41	437	257	3 51	180	17 35	7·7	-23·9	19 35	31·6	18 45	1159	855	4 23	304	3,4,4,3,3,3,4,3	27	1	82·3
15	23 30	411	352	14 29	59	13 59	2·0	-24·7	22 46	26·7	14 40	1057	993	22 55	64	3,1,1,1,2,2,1,4	15	1	83·6
16	17 39	465	332	0 7	133	17 40	19·6	-17·0	18 46	36·6	17 42	1175	969	23 43	206	3,2,1,1,2,4,4,3	20	1	83·8
17	23 46	397	326	1 54	71	14 10	0·4	-17·8	2 9	18·2	15 46	1030	943	2 12	87	3,3,1,0,1,0,1,2	11	1	83·0
18	6 31	398	348	14 28	50	12 50	3·2	-7·9	0 57	11·1	14 58	1056	990	0 57	66	2,2,1,1,2,2,0,1	11	0	83·0
19	1 45	406	347	11 2	59	12 58	4·0	-6·2	2 12	10·2	15 58	1051	1000	1 47	51	2,2,2,2,2,2,1,1	14	0	83·6
20	23 48	408	341	11 40	67	12 47	3·9	-9·9	23 59	13·8	15 38	1041	994	23 59	47	0,0,0,3,1,1,1,3	9	1	82·4
21 *d*	16 58	565	323	10 56	242	16 42	15·5	-16·1	21 27	31·6	17 1	1220	995	0 1	225	3,2,3,3,3,5,4,3	26	1	82·1
22	23 35	394	339	9 25	55	12 45	2·3	-14·5	22 57	16·8	9 20	1048	1009	23 57	39	2,1,2,3,1,2,0,3	14	1	82·1
23	20 15	425	335	23 11	90	13 28	1·7	-17·4	20 13	19·1	20 4	1046	991	23 59	55	2,0,2,1,1,1,3,3	13	1	82·0
24	18 23	404	279	6 5	125	5 9	23·0	-12·4	0 11	35·4	21 15	1059	885	5 26	174	3,5,4,1,1,1,2,2	19	1	82·4
25 *d*	16 51	*1085*	268	22 47	*817*	17 1	*40·0*	-24·3	21 0	*64·3*	17 40	1221	925	16 54	296	1,2,2,2,4,8,6,5	30	2	82·5
26	19 32	390	246	2 36	144	2 23	16·2	-32·6	0 30	48·8	19 9	1099	891	0 56	208	5,3,1,1,0,1,5,2	18	1	82·7
27	6 34	395	354	19 3	41	13 45	3·3	-11·2	18 35	15·5	18 57	1065	981	5 0	84	1,3,2,2,2,2,2,1	15	1	83·0
28 *q*	16 39	393	364	1 14	29	12 51	1·2	-9·4	21 30	10·6	20 6	1042	1010	23 50	32	2,1,1,1,1,1,1,2	10	0	83·0
29	7 20	401	361	11 42	40	15 17	6·1	-18·7	21 5	24·8	18 54	1065	988	0 47	77	2,1,1,1,2,2,3,3	15	1	83·0
30 *d*	18 15	556	-22	22 22	578	17 12	21·8	-22·1	23 4	43·9	18 27	1219	*794*	22 24	*425*	1,1,1,1,2,5,5,7	23	1	82·9
31 *d*	16 36	626	264	0 16	362	15 56	13·0	-15·0	17 4	28·0	16 34	*1275*	934	0 50	341	4,1,2,4,3,6,3,2	25	1	82·1
Mean	- -	446	321	- -	125	- -	8·5	-16·8	- -	25·3	- -	1093	963	- -	130	-	-	0·81	81·7

q denotes an international quiet day and *d* an international disturbed day.

DIURNAL INEQUALITIES OF THE TERRESTRIAL MAGNETIC ELEMENTS

ALL DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

57 LERWICK

HORIZONTAL FORCE

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	−2·3	−4·5	−3·2	−0·4	+1·0	+5·5	+7·4	+5·4	−0·3	−6·7	−10·7	−14·1	*−15·4*	−12·1	−2·4	+6·4	+8·6	+13·6	*+15·6*	+7·7	+1·9	+2·2	−1·1	−2·1
Feb.	−6·9	−1·9	+0·8	+2·0	+3·8	+10·1	+13·1	+8·9	+0·1	−9·8	−18·4	*−21·0*	−20·0	−11·1	−4·3	+1·4	+5·0	+6·7	+9·8	*+13·4*	+10·3	+5·6	+4·5	−2·1
Mar.	−4·5	−7·5	−7·0	−7·6	−7·6	−5·3	−8·1	+8·2	+0·3	−20·3	−27·2	*−28·5*	−19·9	−3·7	+5·3	+14·5	+26·1	*+28·2*	+22·9	+17·1	+18·8	+5·6	+2·1	−1·9
Apr.	−3·0	−16·4	−2·7	+2·7	−0·8	+2·4	+7·3	−1·9	−14·0	−29·6	−39·9	*−41·2*	−32·5	−17·3	−5·6	+8·1	+25·8	*+32·0*	+31·0	+27·9	+21·8	+17·9	+16·7	+11·3
May	−13·7	−23·2	−31·9	−9·8	−10·4	−8·5	−13·5	−17·5	−26·2	−37·4	*−42·5*	−38·6	−26·9	−8·0	+10·8	+29·4	+43·5	+61·9	*+66·6*	+53·4	+34·7	+19·9	+4·0	−16·1
June	−0·7	−5·2	−5·9	−2·2	−2·0	−5·3	−12·4	−17·7	−28·3	−42·3	*−49·1*	−44·6	−29·0	−18·5	+1·5	+21·3	+35·7	+41·8	*+44·2*	+42·8	+35·1	+23·5	+13·6	+3·7
July	−2·6	−2·5	−1·8	+3·6	+3·6	+2·3	−7·3	−19·5	−32·0	−40·5	*−44·5*	−40·2	−30·0	−13·7	−1·5	+15·0	+24·1	+37·2	*+40·1*	+39·8	+33·0	+22·9	+14·4	+0·1
Aug.	−16·3	−19·5	−13·9	−6·6	−11·8	−8·7	−23·4	*−38·8*	−36·4	−31·9	−32·8	−21·5	−9·3	+16·2	+26·9	+41·3	+41·8	+45·9	*+49·5*	+47·2	+25·3	−1·7	−7·5	−14·0
Sept.	−11·2	−8·9	−1·9	+0·3	+4·4	+3·4	+2·9	−2·1	−15·4	−26·8	*−31·2*	−30·0	−21·5	−8·4	+5·2	+11·4	+21·0	+23;7	*+27·7*	+24·0	+19·0	+12·5	+6·6	−4·7
Oct.	*−47·8*	−20·7	−10·9	−4·2	−4·9	−5·1	−2·6	−2·1	−7·2	−14·1	−17·8	−16·1	−4·9	+17·6	+22·9	+31·5	+35·8	*+36·1*	+25·2	+17·7	+4·8	+1·6	+2·9	−37·7
Nov.	−14·6	−9·4	−14·9	−6·4	+0·6	+5·7	+4·3	+2·2	−2·5	−10·6	−15·3	−15·5	−10·0	−3·7	+12·7	+13·7	*+23·8*	+22·4	+23·6	+19·5	+3·6	−1·3	−10·6	*−17·3*
Dec.	−7·6	−5·6	−4·9	−2·1	+1·9	+4·7	+6·7	+6·2	+0·6	−8·6	−12·5	*−13·4*	−10·2	−5·9	−0·2	+3·5	*+22·9*	+18·0	+17·9	+8·6	+4·3	−5·9	−11·0	−7·4
Year	−10·9	−10·4	−8·2	−2·6	−1·9	+0·1	−2·1	−5·7	−13·4	−23·2	*−28·5*	−27·1	−19·1	−5·7	+5·9	+16·5	+26·2	+30·6	*+31·2*	+26·6	+17·7	+8·6	+2·9	−7·3
Winter	−7·9	−5·3	−5·5	−1·7	+1·8	+6·5	+7·9	+5·7	−0·5	−8·9	−14·2	*−16·0*	−13·9	−8·2	+1·5	+6·3	+15·1	+15·2	*+16·7*	+12·3	+5·0	+0·1	−4·5	−7·2
Equinox	−16·6	−13·4	−5·6	−2·2	−2·2	−1·1	−0·1	+0·5	−9·1	−22·7	*−29·0*	−28·9	−19·7	−2·9	+6·9	+16·4	+27·2	*+30·0*	+26·7	+21·7	+16·1	+9·4	+7·1	−8·3
Summer	−8·3	−12·6	−13·4	−3·7	−5·1	−5·1	−14·1	−23·4	−30·7	−38·0	*−42·2*	−36·2	−23·8	−6·0	+9·4	+26·7	+36·3	+46·7	*+50·1*	+45·8	+32·0	+16·1	+6·1	−6·6

DECLINATION

	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
Jan.	−2·76	−2·75	−1·94	−1·75	−0·94	−0·64	−0·80	−0·97	−1·25	−0·77	+0·35	+2·27	+3·40	+4·30	*+5·00*	+4·12	+3·69	+2·63	+2·15	−0·11	−2·48	−3·56	*−3·68*	−3·51
Feb.	−2·69	−2·94	−2·24	−1·85	−1·37	−1·50	−1·19	−1·23	−1·94	−1·55	+0·16	+2·53	+4·60	+5·67	*+5·74*	+4·76	+2·93	+2·39	+1·65	+0·65	−1·38	−2·61	*−4·44*	−4·15
Mar.	−3·17	−2·88	*−4·08*	−3·03	−1·61	−1·63	−1·78	−3·49	−3·89	−2·87	−0·87	+2·84	+6·45	*+7·76*	+7·53	+5·97	+3·66	+1·58	+0·93	+0·33	−1·48	−1·91	−2·56	−1·80
Apr.	−1·96	−3·65	−2·77	−2·70	−2·53	−3·44	−5·27	*−6·40*	−6·25	−4·46	−1·23	+2·96	+6·67	*+8·15*	+7·40	+5·74	+4·01	+2·46	+1·53	+0·82	+0·81	+0·80	0·0	−0·69
May	−1·26	−2·75	−3·18	−3·74	−3·52	−5·67	*−6·77*	−6·61	−6·67	−3·99	−1·21	+2·63	+5·58	+7·01	*+7·19*	+5·71	+4·02	+3·51	+2·89	+2·63	+2·08	+2·09	+0·84	−0·81
June	−0·82	−2·18	−3·46	−4·28	−5·95	−7·50	−8·20	*−8·53*	−7·61	−4·58	−0·63	+3·95	+7·24	*+8·21*	+8·07	+6·84	+4·68	+3·57	+2·99	+2·89	+2·43	+1·86	+0·47	+0·54
July	−0·75	−3·06	−4·26	−4·83	−5·64	−7·18	*−8·10*	−7·71	−6·87	−3·78	−0·79	+3·50	+7·22	*+8·17*	+7·61	+5·96	+4·34	+3·66	+2·63	+2·61	+2·36	+2·55	+1·79	+0·57
Aug.	−3·35	−4·19	−3·91	−4·78	−4·03	−5·04	−5·74	−5·25	*−5·86*	−2·98	+0·36	+4·70	+7·68	*+8·16*	+7·79	+6·42	+3·91	+2·63	+2·67	+1·97	+2·05	+0·50	−1·63	−2·08
Sept.	−4·42	−3·18	−3·26	*−4·80*	−4·10	−2·66	−2·84	−3·60	−3·43	−1·71	+0·86	+4·08	+6·33	*+7·48*	+7·37	+5·47	+3·37	+2·37	+1·71	+1·39	+0·48	−1·38	−1·80	−3·73
Oct.	*−5·19*	−4·15	−3·99	−3·35	−2·05	+0·97	+1·68	−0·24	−2·10	−0·65	+1·60	+4·24	+6·35	*+7·11*	+6·33	+5·08	+1·78	+1·86	+0·49	−0·73	−2·57	−4·24	−4·41	−3·82
Nov.	−4·57	−3·55	−2·95	−1·32	−1·06	−0·11	+0·10	+0·06	−1·02	−0·74	+0·83	+2·88	+4·83	+5·04	*+5·40*	+4·21	+3·32	+2·91	+2·42	−0·20	−3·03	−3·53	−4·39	*−5·53*
Dec.	−3·31	−1·90	−1·26	−0·94	−1·04	−0·81	−0·11	−0·08	−0·73	−0·70	+0·50	+1·87	+3·25	+4·21	*+4·27*	+3·93	+3·71	+2·58	+2·37	−0·41	−3·04	−3·78	−3·94	*−4·64*
Year	−2·85	−3·10	−3·11	−3·11	−2·82	−2·93	−3·25	−3·67	*−3·97*	−2·40	−0·01	+3·20	+5·80	*+6·77*	+6·64	+5·35	+3·62	+2·68	+2·04	+0·99	−0·31	−1·10	−1·98	−2·47
Winter	−3·33	−2·79	−2·10	−1·47	−1·10	−0·77	−0·50	−0·55	−1·23	−0·94	+0·46	+2·39	+4·02	+4·81	*+5·10*	+4·25	+3·41	+2·63	+2·15	−0·02	−2·48	−3·37	−4·11	*−4·46*
Equinox	−3·69	−3·47	−3·53	−3·47	−2·58	−1·69	−2·05	−3·43	*−3·92*	−2·42	+0·09	+3·53	+6·45	*+7·63*	+7·16	+5·57	+3·21	+2·07	+1·17	+0·45	−0·69	−1·68	−2·19	−2·51
Summer	−1·55	−3·05	−3·70	−4·41	−4·79	−6·35	*−7·20*	−7·03	−6·75	−3·83	−0·57	+3·69	+6·93	*+7·89*	+7·67	+6·23	+4·24	+3·34	+2·79	+2·53	+2·23	+1·75	+0·37	−0·45

VERTICAL FORCE

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	−12·8	−16·2	−14·7	−13·5	−16·1	*−17·5*	−13·8	−8·4	−5·5	−3·9	−3·2	−1·9	+0·1	+2·0	+11·6	+13·3	+17·0	+18·6	+22·6	*+24·3*	+18·7	+6·7	−0·5	−6·9
Feb.	−22·7	*−25·0*	−23·0	−18·7	−15·6	−14·1	−10·9	−8·5	−4·5	−1·5	+0·6	+0·9	+3·2	+9·8	+13·7	+21·4	+26·8	*+27·6*	+19·4	+17·4	+14·8	+6·0	−2·6	−14·5
Mar.	−29·4	*−30·3*	−25·4	−20·0	−27·9	−23·8	−16·2	−8·2	−0·7	+2·3	+5·8	+8·0	+8·6	+13·1	+19·0	+27·8	+33·3	*+34·4*	+23·7	+19·1	+12·6	+0·1	−10·6	−15·3
Apr.	−23·1	*−33·0*	−24·7	−18·6	−22·5	−16·7	−10·0	−1·5	+2·1	+3·7	+3·8	+0·9	+0·9	+5·2	+11·2	+16·0	+24·7	*+27·6*	+24·2	+19·4	+12·5	+7·9	+1·3	−11·3
May	−31·9	−41·2	*−41·3*	−39·6	−28·0	−24·1	−10·6	−2·8	+1·6	+3·9	+4·1	+5·0	+9·0	+16·9	+22·7	+30·9	*+35·6*	+32·5	+32·0	+27·9	+17·3	+7·6	−8·2	−19·3
June	−12·4	−20·6	*−22·0*	−19·7	−14·6	−5·3	−3·9	−1·0	−0·4	−1·3	−3·6	−7·5	−8·3	−2·6	+1·7	+9·8	+20·2	*+24·7*	+23·1	+19·8	+14·7	+10·6	+4·1	−5·5
July	−8·6	−18·5	*−18·9*	−15·7	−12·9	−8·6	−3·6	−2·5	−1·8	−4·5	−5·4	−7·0	−4·9	−1·5	+3·5	+12·5	+20·8	*+22·4*	+21·2	+17·1	+13·9	+6·4	+3·3	−6·7
Aug.	−24·2	*−36·7*	−32·6	−28·2	−30·7	−24·2	−16·0	−12·9	−8·8	+0·5	+3·7	+0·6	+6·4	+14·1	+25·5	+33·8	*+43·0*	+38·8	+29·6	+22·8	+12·7	+8·7	−8·1	−17·8
Sept.	−29·1	*−34·4*	−31·4	−29·2	−19·5	−12·9	−9·8	−4·5	+0·3	+2·1	+2·2	+3·4	+7·9	+12·0	+18·2	+27·8	*+32·3*	+30·0	+26·4	+21·1	+14·1	+3·7	−9·5	−21·2
Oct.	−30·9	−36·1	−30·5	−34·7	−31·2	−34·9	−28·7	−15·5	−0·5	+6·3	+10·8	+18·5	+25·7	+35·8	+40·3	+45·3	*+48·7*	+42·6	+30·2	+15·1	−1·5	−6·1	−24·7	*−44·0*
Nov.	*−28·8*	−25·9	−28·3	−27·1	−23·7	−18·1	−14·7	−9·2	−3·2	+2·1	+5·1	+7·6	+8·7	+15·7	+19·9	+25·5	+27·1	+23·8	+28·7	*+29·6*	+17·8	−2·1	−9·8	−20·7
Dec.	−16·8	*−20·7*	−17·6	−16·0	−20·0	−18·9	−15·5	−11·5	−6·2	−2·5	−1·0	+0·7	+0·9	+2·1	+7·6	+16·8	+28·3	+33·8	*+34·6*	+29·9	+13·8	+1·8	−10·0	−13·6
Year	−22·6	*−28·2*	−25·9	−23·4	−21·9	−18·3	−12·8	−7·2	−2·3	+0·6	+1·9	+2·4	+4·9	+10·2	+16·2	+23·4	*+29·8*	+29·7	+26·3	+22·0	+13·5	+4·4	−6·3	−16·4
Winter	−20·3	*−21·9*	−20·9	−18·8	−18·9	−17·1	−13·7	−9·4	−4·9	−1·5	+0·4	+1·8	+3·2	+7·4	+13·2	+19·3	+24·8	+25·9	*+26·3*	+25·3	+16·3	+3·1	−5·7	−13·9
Equinox	−28·1	*−33·5*	−28·0	−25·6	−25·3	−22·1	−16·2	−7·4	+0·3	+3·6	+5·7	+7·7	+10·8	+16·5	+22·2	+29·2	*+34·7*	+33·7	+26·1	+18·7	+9·4	+1·4	−10·9	−22·9
Summer	−19·3	*−29·3*	−28·7	−25·8	−21·5	−15·5	−8·5	−4·8	−2·3	−0·3	−0·3	−2·2	+0·5	+6·7	+13·3	+21·7	*+29·9*	+29·6	+26·5	+21·9	+14·7	+8·3	−2·2	−12·3

INTERNATIONAL QUIET DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

58 LERWICK

HORIZONTAL FORCE

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	-2·2	-0·5	+0·2	+0·9	+2·3	+4·0	+6·7	+4·9	-0·8	-7·1	-12·4	*-14·9*	-13·4	-9·5	-5·0	-2·1	-0·9	+3·2	+6·5	+7·5	*+9·0*	+8·9	+8·4	+6·3
Feb.	+5·5	+2·2	+0·6	+2·9	+4·2	+6·2	+7·1	+4·4	-3·2	-11·5	-17·8	-20·8	*-20·9*	-14·6	-7·8	-3·3	+1·8	+6·2	+7·1	+9·6	+10·8	*+11·1*	+9·8	+10·4
Mar.	+5·6	+2·2	+0·1	+2·6	+7·0	+9·0	+10·2	+4·6	-5·1	-16·4	-26·4	*-31·4*	-25·0	-20·6	-11·1	-1·4	+2·0	+7·6	+14·8	+15·6	*+17·7*	+15·2	+12·2	+11·0
Apr.	+13·4	+11·4	+10·2	+10·2	+9·6	+11·5	+10·4	-2·0	-14·2	-29·8	-39·8	*-44·6*	-37·4	-27·6	-18·6	-7·2	+4·0	+13·7	+20·4	*+25·2*	+22·0	+20·2	+17·8	+21·2
May	-0·4	-1·8	+0·2	+2·8	+4·8	+4·7	-1·0	-13·6	-26·4	-38·0	*-46·8*	-44·2	-31·6	-15·0	+2·2	+12·4	+22·6	+32·9	*+41·0*	+33·8	+23·8	+19·0	+12·0	+6·6
June	+6·9	+4·9	+5·0	+5·7	+5·3	+3·1	-5·3	-15·1	-27·2	-38·9	*-42·5*	*-42·5*	-30·7	-17·5	+0·6	+6·7	+20·1	+28·9	+27·7	*+29·9*	+26·8	+20·1	+15·5	+12·5
July	+9·6	+5·7	+8·9	+4·8	+6·7	+7·1	-2·4	-17·1	-34·9	-53·2	*-56·1*	-47·5	-31·6	-12·3	+1·7	+12·2	+15·3	+25·1	+31·0	*+33·7*	+30·5	+25·8	+20·5	+16·5
Aug.	+4·5	+3·7	+4·8	+6·3	+4·7	+0·3	-6·9	-13·9	-22·2	-29·3	*-32·5*	-29·7	-24·1	-15·7	-4·0	+5·1	+15·9	+20·1	*+25·3*	+23·7	+20·8	+17·9	+14·1	+11·1
Sept.	+8·1	+8·3	+8·5	+8·1	+6·1	+5·0	+2·1	-3·7	-14·7	-23·5	-28·3	*-29·1*	-24·7	-19·9	-12·3	-1·7	+3·9	+10·4	+16·3	+16·7	*+18·5*	+17·5	+11·7	+16·7
Oct.	+2·1	+4·3	+3·9	+3·3	+3·7	+7·7	+8·3	+3·9	-4·3	-17·7	-25·3	*-29·3*	-27·5	-21·7	-11·7	-3·5	+6·5	+13·9	+11·1	+12·9	+14·7	+14·5	+14·5	*+15·7*
Nov.	-1·2	+0·1	-0·4	-0·8	+0·4	+4·1	+8·6	+6·8	+1·0	-7·3	-12·6	*-16·8*	-16·2	-13·1	-9·2	-2·6	+5·0	+7·7	+8·8	*+10·2*	+8·6	+7·5	+6·6	+4·8
Dec.	-2·5	-3·5	-3·3	-0·7	+2·9	+2·7	+2·9	+1·9	-0·7	-8·1	-9·5	*-10·1*	-8·9	-5·9	-3·7	+1·5	+5·5	+6·9	*+7·7*	+6·5	+5·5	+4·3	+3·9	+4·7
Year	+4·1	+3·1	+3·2	+3·9	+4·8	+5·5	+3·4	-3·2	-12·7	-23·4	-29·2	*-30·1*	-24·3	-16·1	-6·6	+1·3	+8·5	+14·7	+18·1	*+18·8*	+17·4	+15·2	+12·3	+11·5
Winter	-0·1	-0·4	-0·7	+0·6	+2·5	+4·3	+6·3	+4·5	-0·9	-8·5	-13·1	*-15·7*	-14·9	-10·8	-6·4	-1·6	+2·9	+6·0	+7·5	*+8·5*	*+8·5*	+7·9	+7·2	+6·5
Equinox	+7·3	+6·5	+5·7	+6·1	+6·6	+8·3	+7·7	+0·7	-9·6	-21·9	-29·9	*-33·6*	-28·7	-22·5	-13·4	-3·5	+4·1	+11·4	+15·7	+17·6	*+18·2*	+16·9	+14·1	+16·1
Summer	+5·1	+3·1	+4·7	+4·9	+5·4	+3·8	-3·9	-14·9	-27·7	-39·9	*-44·5*	-41·0	-29·5	-15·1	+0·1	+9·1	+18·5	+26·7	*+31·3*	+30·3	+25·5	+20·7	+15·5	+11·7

DECLINATION

	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
Jan.	-0·63	-0·81	-0·50	-0·91	-1·51	-1·51	-1·87	-2·03	*-2·34*	-1·83	-0·13	+1·79	+2·89	*+3·13*	+2·80	+2·11	+1·69	+0·71	+0·91	+0·53	+0·08	-0·53	-0·89	-1·15
Feb.	-1·39	*-3·51*	-2·76	-2·39	-1·89	-1·87	-2·03	-2·25	-2·66	-2·13	+0·03	+2·41	+3·79	*+4·75*	+4·70	+2·97	+1·41	+0·85	+0·93	+0·83	+0·44	+0·23	-0·13	-0·33
Mar.	-1·50	-1·67	-1·27	-1·30	-2·51	-2·49	-3·06	-4·69	*-5·81*	-4·86	-2·61	+0·89	+5·32	+6·75	*+6·81*	+5·72	+3·95	+2·47	+1·84	+0·79	+0·67	-0·10	-1·93	-1·41
Apr.	+0·27	-0·26	+0·94	-0·95	-2·00	-3·86	-5·91	*-7·58*	*-7·58*	-6·03	-3·26	+0·76	+5·41	*+7·40*	+6·52	+5·05	+2·96	+1·56	+1·21	+1·34	+1·22	+1·31	+0·90	+0·58
May	+1·09	+0·10	-1·15	-3·38	-5·26	-6·83	-8·14	*-8·70*	-6·85	-4·78	-1·55	+1·94	+5·41	*+7·12*	+6·99	+5·36	+3·82	+2·95	+2·50	+2·68	+2·85	+2·22	+1·19	+0·42
June	-0·30	-1·57	-2·78	-4·19	-5·07	-6·20	-6·97	*-7·01*	-6·26	-4·11	-1·50	+2·73	+5·80	*+6·57*	+6·30	+4·61	+3·77	+3·20	+2·69	+2·95	+2·20	+2·09	+1·90	+1·15
July	-0·27	-1·44	-3·29	-3·00	-5·59	-8·86	*-9·85*	-9·28	-8·05	-4·58	+0·33	+5·44	+8·97	*+9·12*	+6·93	+4·74	+2·57	+2·06	+1·81	+2·58	+2·67	+2·58	+2·25	+2·16
Aug.	-1·77	-1·44	-1·87	-2·59	-3·95	-5·62	-6·69	*-7·23*	-6·71	-3·14	+0·11	+3·97	+6·81	*+7·52*	+6·79	+5·29	+3·91	+2·20	+1·51	+1·47	+1·71	+1·24	-0·79	-0·73
Sept.	-0·86	-1·61	-1·85	-2·38	-2·51	-2·77	-2·78	-3·43	*-3·61*	-2·18	+0·31	+2·89	+5·04	*+5·73*	+4·83	+3·28	+1·73	+1·31	+0·96	+1·21	+0·89	-0·96	-1·47	-1·77
Oct.	-2·20	-1·00	-0·58	-1·66	-1·42	-1·63	-2·62	-3·74	*-4·38*	-3·14	-1·18	+2·06	+4·22	*+5·10*	+4·68	+3·28	+1·94	+1·29	+0·96	+1·38	+1·20	+0·30	-0·94	-1·92
Nov.	-2·63	-2·28	-1·16	-0·53	-0·98	-1·40	-1·79	-1·68	*-2·64*	-2·07	-0·18	+1·80	+3·09	*+3·62*	+3·28	+2·83	+2·50	+2·06	+1·05	-0·04	-0·66	-0·17	-0·82	-1·20
Dec.	-2·24	-1·19	-1·10	-0·34	-1·30	-1·17	-1·04	-0·30	-0·54	-0·67	+0·58	+2·10	+2·44	*+3·09*	+2·64	+2·08	+1·56	+1·23	+0·68	+0·14	-0·92	*-2·65*	-1·82	-1·26
Year	-1·04	-1·39	-1·45	-1·97	-2·83	-3·68	-4·40	*-4·83*	-4·79	-3·29	-0·75	+2·40	+4·93	*+5·83*	+5·27	+3·94	+2·65	+1·82	+1·42	+1·32	+1·03	+0·46	-0·21	-0·45
Winter	-1·72	-1·95	-1·38	-1·04	-1·42	-1·49	-1·68	-1·57	*-2·05*	-1·67	+0·07	+2·03	+3·05	*+3·65*	+3·35	+2·50	+1·79	+1·21	+0·89	+0·37	-0·27	-0·78	-0·91	-0·99
Equinox	-1·07	-1·13	-0·69	-1·57	-2·11	-2·69	-3·59	-4·86	*-5·35*	-4·05	-1·69	+1·65	+5·00	*+6·25*	+5·71	+4·33	+2·65	+1·66	+1·24	+1·18	+0·99	+0·14	-0·86	-1·13
Summer	-0·31	-1·09	-2·27	-3·29	-4·97	-6·88	-7·91	*-8·05*	-6·97	-4·15	-0·65	+3·52	+6·75	*+7·58*	+6·75	+5·00	+3·52	+2·60	+2·13	+2·42	+2·36	+2·03	+1·14	+0·75

VERTICAL FORCE

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	+1·6	-0·2	-0·4	-0·6	-1·0	-2·9	*-4·4*	-3·2	-4·0	-1·2	-0·6	-0·4	+1·0	+0·2	+0·4	+2·4	+4·0	*+4·1*	+2·6	+1·8	+1·2	0·0	-0·4	0·0
Feb.	-12·5	*-18·3*	-8·5	-7·1	-4·7	-2·3	-1·1	+0·1	+3·5	+6·1	+5·1	+3·1	+2·9	+3·7	+4·5	*+6·3*	+5·3	+5·1	+2·5	+3·3	+1·7	+0·1	+0·7	+0·5
Mar.	-5·5	*-10·6*	-7·9	-4·4	-3·4	-1·3	+0·6	+4·4	+4·5	+4·4	+1·5	-3·2	-5·5	-1·6	+1·3	+4·2	*+5·6*	+3·9	+3·2	+4·6	+3·5	+2·4	+0·9	-1·6
Apr.	-7·2	-1·9	+2·6	+2·5	+2·0	+0·9	+2·0	+3·1	+2·6	-0·5	-2·2	-3·7	-5·2	-4·1	-2·0	+0·9	+4·2	*+4·5*	+4·0	+0·5	+2·0	+0·3	-0·8	-4·5
May	*-18·7*	-15·0	-7·2	-1·3	+3·2	+6·0	+7·1	+7·8	+4·4	+0·5	-3·6	-8·2	-11·9	-5·6	0·0	+5·7	+8·4	+9·6	*+12·1*	+12·0	+9·0	+2·5	-4·6	-12·2
June	+3·1	+0·7	+1·3	+1·7	+1·3	+0·6	+1·7	+1·3	+0·1	-5·3	-8·5	-10·1	*-13·3*	-10·5	-8·3	-6·3	-0·1	+4·6	+10·9	*+11·1*	+10·9	+5·9	+3·9	+3·3
July	-3·5	-8·4	*-11·7*	-7·1	-4·5	+1·2	+6·7	+5·1	+3·7	0·0	-6·7	-11·5	-9·9	-6·6	-1·1	+2·9	+8·3	+8·2	*+9·1*	+8·9	+7·7	+6·2	+3·7	-0·7
Aug.	-2·0	-3·4	-4·5	-2·6	+1·8	+6·2	+6·0	+3·2	-0·1	-1·6	-5·6	-10·8	*-12·8*	-9·6	-4·7	+0·4	+3·6	+7·4	*+8·6*	+8·4	+5·3	+4·6	+3·0	-0·8
Sept.	*-17·0*	-5·8	-2·3	-0·4	+2·2	+3·2	+2·2	+3·0	+4·3	0·0	-3·0	-5·2	-5·4	-4·0	+0·9	+8·2	*+11·6*	+8·2	+6·2	+5·0	+4·1	+1·2	-3·0	-14·2
Oct.	-8·3	-3·4	-2·7	-7·8	*-8·8*	-6·7	-0·8	+2·6	+3·7	+3·4	+1·9	+0·6	-0·5	+0·6	+2·3	+3·0	+2·4	+5·3	*+9·6*	+4·4	+2·1	+1·2	+0·1	-4·2
Nov.	*+6·0*	+2·8	+0·8	-1·2	-2·8	-4·5	*-6·6*	-5·0	-2·4	-0·8	-2·2	-1·6	-1·2	-0·2	+2·4	+4·4	+3·0	+2·9	+2·6	+2·6	+1·8	+0·8	-0·8	-0·8
Dec.	-0·9	-0·9	-2·1	-4·7	-7·7	-6·0	-6·1	-7·1	-4·9	-1·3	-0·1	+1·1	+2·1	+2·9	*+6·9*	+5·5	+3·5	+2·8	+3·3	+4·7	+5·7	+5·5	+2·1	-4·3
Year	*-5·4*	*-5·4*	-3·5	-2·7	-1·9	-0·5	+0·6	+1·3	+1·3	+0·3	-2·0	-4·2	-5·0	-2·9	+0·2	+3·1	+5·0	+5·5	*+6·2*	+5·6	+4·6	+2·6	+0·4	-3·3
Winter	-1·5	-4·1	-2·5	-3·4	-4·1	-3·9	*-4·5*	-3·8	-1·9	+0·7	+0·5	+0·5	+1·2	+1·7	+3·5	*+4·7*	+3·9	+3·7	+2·7	+3·1	+2·6	+1·6	+0·4	-1·1
Equinox	*-9·5*	-5·4	-2·6	-2·5	-2·0	-1·0	+1·0	+3·3	+3·8	+1·8	-0·5	-2·9	-4·1	-2·3	+0·6	+4·1	*+5·9*	+5·5	+5·7	+3·6	+2·9	+1·3	-0·7	-6·1
Summer	-5·3	-6·5	-5·5	-2·3	+0·5	+3·5	+5·4	+4·3	+2·0	-1·6	-6·1	-10·1	*-12·0*	-8·1	-3·5	+0·7	+5·1	+7·5	*+10·2*	+10·1	+8·2	+4·8	+1·5	-2·6

DIURNAL INEQUALITIES OF THE TERRESTRIAL MAGNETIC ELEMENTS

INTERNATIONAL DISTURBED DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

59 LERWICK

HORIZONTAL FORCE

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	−15·1	−22·5	−18·5	−13·5	−11·7	−1·6	−2·5	−3·5	−7·7	−11·9	−16·9	−21·9	*−27·5*	−15·9	+11·3	+45·1	+47·5	+69·2	*+71·1*	+20·3	−15·5	−18·5	−22·3	−17·5
Feb.	*−28·4*	−10·5	−7·2	+1·6	+0·6	+13·9	+20·2	+10·4	−2·4	−15·9	−26·6	−24·0	−18·0	+2·3	+5·4	+14·4	+15·4	+18·1	+18·8	*+31·0*	+9·0	−2·1	−1·4	−24·6
Mar.	−34·2	−65·1	−56·8	−65·4	−79·2	−78·5	*−90·4*	+29·2	+21·8	−41·3	−27·4	−16·2	+9·2	+65·7	+62·4	+79·2	*+139·4*	+137·9	+78·0	+27·4	+25·6	−26·7	−39·0	−55·6
Apr.	−58·8	*−102·5*	−28·6	+6·9	−11·3	−22·0	+6·3	−6·5	−9·4	−22·9	−27·2	−24·3	−6·4	+14·1	+15·8	+18·9	+31·9	*+46·6*	+41·9	+38·3	+29·2	+22·5	+28·0	+19·5
May	−13·2	−31·3	*−120·6*	−33·2	−16·2	−31·3	−74·6	−45·0	−26·0	−27·5	−26·4	−20·8	+3·8	+25·5	+46·6	+62·0	+89·4	*+100·9*	+98·6	+89·2	+52·8	+20·3	−21·0	−102·0
June	−18·8	−46·9	−32·5	−24·0	−16·7	−16·5	−25·2	−16·5	−23·7	−42·0	*−59·1*	−42·7	−15·8	−17·5	+14·3	+57·6	+65·1	*+69·1*	+66·0	+57·5	+45·9	+25·4	+8·3	−11·3
July	−5·3	−19·9	−20·1	+1·9	−4·9	+4·2	−8·9	−25·3	−32·9	−35·5	*−41·1*	−37·5	−33·5	−8·7	+8·3	+21·3	+37·7	+46·8	+45·5	*+52·7*	+42·5	+25·7	+15·5	−28·5
Aug.	−95·4	−109·6	−71·8	−28·6	−71·4	−36·5	−98·0	*−150·4*	−90·6	−17·2	+6·6	+22·4	+57·0	+144·0	+121·8	*+166·0*	+130·0	+136·1	+142·0	+117·2	+29·4	−98·4	−91·8	−112·8
Sept.	−8·7	−40·5	−6·7	−5·7	−5·7	−3·4	+0·7	−0·5	−18·3	−29·9	−38·5	−32·5	−18·9	+15·7	+34·1	+42·7	*+51·7*	+37·4	+40·9	+29·5	+12·1	−12·3	−2·3	*−40·9*
Oct.	*−282·9*	−107·1	−74·4	−46·3	−81·7	−83·1	−38·1	−20·9	−18·6	−7·9	+19·7	+37·9	+36·7	+91·1	+87·6	*+116·1*	+99·9	+105·1	+69·9	+48·3	+10·8	+31·7	+44·7	−38·5
Nov.	*−81·1*	−40·0	−36·3	−29·2	−11·4	−2·1	−14·6	−15·2	−12·5	−13·6	−14·3	−8·6	+10·1	+18·6	+66·7	+49·2	*+108·4*	+74·9	+70·6	+54·3	−25·0	−47·4	−49·1	−52·4
Dec.	−20·0	−10·1	−9·4	−8·4	−2·6	+3·5	+2·6	−1·8	−8·8	−22·1	−22·4	−19·4	−11·6	−7·7	+6·0	+9·4	*+116·6*	+62·3	+59·8	+30·0	+7·0	−30·7	*−74·6*	−47·6
Year	*−55·2*	−50·5	−40·2	−20·3	−26·0	−21·1	−26·9	−20·5	−19·1	−24·0	−22·8	−15·6	−1·2	+27·3	+40·0	+56·8	*+77·7*	+75·4	+66·9	+49·6	+18·6	−9·2	−17·1	−42·7
Winter	−36·1	−20·8	−17·9	−12·4	−6·3	+3·4	+1·4	−2·5	−7·9	−15·9	−20·1	−18·5	−11·7	−0·7	+22·4	+29·5	*+72·0*	+56·1	+55·1	+33·9	−6·1	−24·7	*−36·9*	−35·5
Equinox	*−96·1*	−78·8	−41·6	−27·6	−44·5	−46·7	−30·4	+0·3	−6·1	−25·5	−18·3	−8·8	+5·1	+46·7	+50·0	+64·2	+80·7	*+81·7*	+57·7	+35·9	+19·4	+3·8	+7·9	−28·9
Summer	−33·2	−51·9	−61·3	−21·0	−27·3	−20·0	−51·7	−59·3	−43·3	−30·5	−30·0	−19·7	+2·9	+35·8	+47·7	+76·7	+80·5	*+88·2*	+88·0	+79·1	+42·7	−6·7	−22·3	*−63·7*

DECLINATION

	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
Jan.	−5·78	−4·99	−0·92	−2·07	+0·96	+1·79	+0·90	−0·05	−1·24	−1·09	−0·12	+1·95	+4·14	+5·49	*+6·16*	+5·55	+6·08	+5·45	+5·54	−2·57	*−7·48*	−6·53	−5·18	−5·99
Feb.	−3·02	−4·53	−3·60	−2·31	−0·68	−1·21	+0·14	−0·31	−0·70	+0·29	+1·72	+3·17	+5·72	+6·13	+6·74	*+6·77*	+2·28	+1·35	+1·60	+0·71	−2·60	−5·87	*−6·46*	−5·33
Mar.	−7·46	−6·40	*−12·29*	−6·88	+2·48	+2·78	+1·92	−2·86	−1·19	−1·40	−1·58	+2·32	+7·56	*+9·44*	+8·71	+8·20	+6·60	+3·94	+1·32	+0·68	−4·57	−1·08	−5·80	−4·44
Apr.	−9·50	*−19·15*	−10·01	−5·32	+0·61	−0·69	−4·28	−3·87	−3·13	−1·56	+1·49	+5·27	+8·38	*+9·61*	+9·03	+7·66	+6·25	+5·07	+1·36	+1·05	−0·15	+0·96	+0·15	+0·77
May	−3·20	−4·08	−4·96	−4·58	−5·28	*−8·09*	−6·04	−1·36	−6·36	−1·98	+0·32	+4·74	*+7·70*	+7·28	+7·30	+3·84	+4·58	+4·59	+3·60	+2·18	+2·52	+2·42	−0·84	−4·30
June	−1·69	−5·88	−6·38	−6·55	−7·86	−7·74	−7·39	*−8·62*	−8·52	−3·85	−0·22	+5·08	+8·23	+8·54	+9·22	*+9·57*	+5·70	+4·76	+3·37	+3·40	+2·70	+2·37	+1·08	+0·68
July	−1·07	−5·06	*−6·71*	−4·09	−3·77	−5·58	−6·59	−3·97	−3·63	−2·06	−0·99	+2·77	+7·15	*+7·74*	+7·05	+4·47	+3·47	+3·68	+1·99	+2·71	+0·73	+0·90	+1·29	−0·43
Aug.	−6·23	−12·72	*−14·41*	−10·60	−5·22	−5·75	−7·38	−1·82	−9·65	−5·10	−0·63	+5·82	+8·87	+9·08	+9·71	*+12·02*	+7·66	+6·51	+9·32	+6·70	+8·19	+0·76	−1·91	−3·22
Sept.	−5·12	−4·36	−5·06	−7·44	−5·18	+0·63	+2·34	−0·12	−1·34	+0·44	+2·54	+5·46	+6·70	*+7·44*	+6·70	+6·00	+4·06	+3·39	+2·14	−0·04	−3·84	*−7·58*	−2·86	−4·90
Oct.	*−16·85*	−12·88	−15·37	−14·15	−3·61	*+11·76*	+7·97	+0·81	−2·49	+4·10	+5·45	+6·11	+8·93	+7·34	+7·07	+7·03	+1·93	+3·12	+0·49	+1·99	−5·43	−5·62	−0·77	+3·07
Nov.	−9·37	−6·38	−7·20	−2·03	+0·44	+3·62	+3·97	+4·68	+3·20	+3·15	+2·36	+3·34	*+7·07*	+6·66	+6·54	+3·37	+5·68	+3·24	+2·41	+2·04	−6·64	*−11·77*	−8·88	−9·50
Dec.	−4·88	−2·71	−1·30	+0·10	−1·82	−2·61	−1·06	−0·02	−1·48	−0·93	+1·24	+1·76	+3·24	+4·53	+6·86	+7·60	*+9·20*	+6·39	+6·88	−1·84	−6·36	*−8·77*	−7·70	−6·32
Year	−6·18	*−7·43*	−7·35	−5·49	−2·41	−0·92	−1·37	−1·46	−3·04	−0·83	+0·97	+3·98	+6·97	*+7·61*	+7·59	+6·84	+5·29	+4·29	+3·33	+1·42	−1·99	−3·32	−3·16	−3·33
Winter	−5·76	−4·65	−3·25	−1·58	−0·27	+0·40	+0·99	+1·07	−0·05	+0·35	+1·30	+2·55	+5·04	+5·70	*+6·57*	+5·82	+5·81	+4·11	+4·11	−0·41	−5·77	*−8·23*	−7·05	−6·79
Equinox	−9·73	*−10·70*	−10·68	−8·45	−1·43	+3·62	+1·99	−1·51	−2·04	+0·39	+1·97	+4·79	+7·89	*+8·46*	+7·88	+7·22	+4·71	+3·88	+1·33	+0·92	−3·50	−3·33	−2·32	−1·37
Summer	−3·05	−6·93	*−8·11*	−6·45	−5·53	−6·79	−6·85	−3·94	−7·04	−3·25	−0·38	+4·60	+7·99	+8·16	*+8·32*	+7·47	+5·35	+4·89	+4·57	+3·75	+3·53	+1·61	−0·09	−1·82

VERTICAL FORCE

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	−29·0	−31·9	−28·6	−31·2	−53·6	*−63·1*	−41·2	−21·4	−11·4	−6·5	−4·0	−0·4	+5·4	+10·7	+46·8	+36·0	+40·8	+40·5	+58·6	*+60·4*	+37·4	+2·7	−6·2	−10·8
Feb.	−37·8	−49·5	*−50·8*	−38·4	−35·4	−35·5	−29·8	−22·2	−15·2	−5·7	+1·6	+3·6	+12·4	+35·5	+33·8	+52·4	*+65·4*	+57·1	+38·6	+34·0	+25·4	+4·5	−11·2	−32·8
Mar.	−80·9	−102·6	−96·1	−77·7	*−121·3*	−104·8	−71·9	−36·5	+2·3	+13·8	+36·9	+58·3	+64·3	+70·8	+85·5	+99·3	+101·7	*+115·4*	+81·3	+66·5	+40·7	−16·8	−56·9	−71·3
Apr.	−43·7	*−82·7*	−66·8	−51·5	−56·5	−45·9	−34·1	−8·7	+1·2	+11·5	+18·9	+16·9	+22·5	+34·3	*+43·2*	+40·9	+42·7	+38·1	+39·3	+32·5	+23·0	+18·1	+6·5	+0·3
May	−43·6	−42·4	−64·1	*−104·4*	−77·8	−57·6	−34·6	−27·7	−13·6	+1·6	+11·6	+27·4	+41·2	+60·4	+65·3	*+80·8*	+74·6	+62·8	+60·0	+47·0	+13·7	+1·6	−31·6	−50·6
June	−21·8	−64·9	−71·4	*−74·7*	−58·3	−31·4	−19·1	−8·5	0·0	+2·9	+7·0	+5·1	+10·6	+19·9	+18·0	+36·3	*+61·7*	+57·2	+45·9	+32·3	+27·2	+24·3	+12·2	−10·5
July	−26·8	−42·9	*−49·0*	−33·5	−34·9	−31·4	−15·3	−9·9	−4·8	−1·7	+1·8	+6·5	+8·4	+6·9	+16·6	+40·5	+42·9	*+46·4*	+38·5	+26·3	+23·4	+12·3	+6·6	−26·9
Aug.	−79·4	*−142·1*	−102·6	−77·1	−108·3	−67·0	−41·9	−33·9	−13·4	+20·1	+42·0	+40·7	+47·4	+56·3	+84·2	+83·9	*+104·1*	+82·4	+62·7	+47·1	+30·8	+22·3	−35·2	−23·1
Sept.	−50·9	*−89·5*	−75·5	−78·9	−67·3	−52·0	−41·5	−27·1	−9·9	+1·1	+11·1	+23·7	+41·3	+59·7	+67·5	+76·3	*+77·3*	+67·8	+58·5	+48·9	+20·7	−8·9	−15·1	−37·3
Oct.	−35·1	−96·4	−92·7	−120·3	−116·9	*−153·8*	−119·5	−41·1	+7·9	+26·0	+37·7	+75·7	+82·9	+92·6	+90·9	+94·7	*+108·5*	+82·0	+44·7	+28·3	−1·7	+16·6	+7·3	−18·3
Nov.	*−111·4*	−84·0	−78·0	−62·6	−56·8	−38·4	−28·8	−17·6	−1·0	+10·2	+23·8	+34·2	+41·6	+49·4	+63·0	*+84·8*	+71·2	+59·6	+64·0	+69·0	+28·4	−40·0	−37·0	−43·6
Dec.	−40·5	−33·2	−24·3	−24·7	−27·3	−28·8	−27·9	−27·3	−22·9	−20·0	−16·9	−14·5	−14·7	−14·2	−1·3	+44·5	+102·9	*+114·4*	+101·5	+75·3	+14·7	−16·4	*−62·1*	−36·3
Year	−50·1	*−71·8*	−66·7	−64·6	−67·9	−59·1	−42·1	−23·5	−6·7	+4·4	+14·3	+23·1	+30·2	+40·2	+51·3	+64·2	*+74·5*	+68·6	+57·8	+47·3	+23·6	+1·7	−18·7	−30·1
Winter	*−54·7*	−49·7	−45·4	−39·2	−43·3	−41·5	−31·9	−22·1	−12·6	−5·5	+1·1	+5·7	+11·2	+20·3	+35·6	+54·4	*+70·1*	+67·9	+65·7	+59·7	+26·5	−12·3	−29·1	−30·9
Equinox	−52·7	*−92·8*	−82·8	−82·1	−90·5	−89·1	−66·7	−28·3	+0·4	+13·1	+26·1	+43·7	+52·7	+64·3	+71·8	+77·8	*+82·5*	+75·8	+55·9	+44·1	+20·7	+2·3	−14·5	−31·7
Summer	−42·9	*−73·1*	−71·8	−72·4	−69·8	−46·9	−27·7	−20·0	−7·9	+5·7	+15·6	+19·9	+26·9	+35·9	+46·0	+60·4	*+70·8*	+62·2	+51·8	+38·2	+23·8	+15·1	−12·0	−27·8

RANGE OF MEAN DIURNAL INEQUALITIES FOR THE MONTHS, YEAR AND SEASONS OF 1948

The ranges are derived from the diurnal inequalities printed in Tables 57 to 59

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	All days			Quiet days			Disturbed days		
	H	*D*	*V*	*H*	*D*	*V*	*H*	*D*	*V*
	γ	′	γ	γ	′	γ	γ	′	γ
Jan.	31·0	8·68	41·8	23·9	5·47	8·5	98·6	13·64	123·5
Feb.	34·4	10·18	52·6	32·0	8·26	24·6	59·4	13·23	116·2
Mar.	56·7	11·84	64·6	49·1	12·62	16·2	229·8	21·73	236·7
Apr.	73·2	14·55	60·6	69·8	14·98	11·7	149·1	28·76	125·9
May	109·1	13·96	76·9	87·8	15·82	30·8	221·5	15·79	185·2
June	93·3	16·74	46·7	72·4	13·58	24·4	128·2	18·19	136·4
July	84·6	16·27	41·3	89·8	18·97	20·8	93·8	14·45	95·4
Aug.	88·3	14·02	79·7	57·8	14·75	21·4	316·4	26·43	246·2
Sept.	58·9	12·28	66·7	47·6	9·34	28·6	92·6	15·02	166·8
Oct.	83·9	12·30	92·7	45·0	9·48	18·4	399·0	28·61	262·3
Nov.	41·1	10·93	58·4	27·0	6·26	12·6	189·5	18·84	196·2
Dec.	36·3	8·91	55·3	17·8	5·74	14·6	191·2	17·97	176·5
Year	59·7	10·74	58·0	48·9	10·66	11·6	132·9	15·04	146·3
Winter	32·7	9·56	48·2	24·2	5·70	9·2	108·9	14·80	124·8
Equinox	59·0	11·55	68·2	51·8	11·60	15·4	177·8	19·16	175·3
Summer	92·3	15·09	59·2	75·8	15·63	22·2	151·9	16·43	143·9

AVERAGE DEPARTURE

Arithmetical average of diurnal inequalities in Tables 57 to 59 taken regardless of sign

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	All days			Quiet days			Disturbed days		
	H	*D*	*V*	*H*	*D*	*V*	*H*	*D*	*V*
	γ	′	γ	γ	′	γ	γ	′	γ
Jan.	6·3	2·33	11·2	5·7	1·39	1·6	22·0	3·67	28·3
Feb.	8·0	2·59	13·4	8·3	1·95	4·5	13·4	3·05	30·4
Mar.	12·4	3·09	17·3	11·5	2·94	3·7	56·3	4·66	69·7
Apr.	17·1	3·45	13·4	18·4	3·12	2·7	26·7	4·81	32·5
May	27·0	3·85	20·6	18·2	3·89	7·4	49·1	4·26	45·7
June	21·9	4·48	10·7	18·3	3·83	5·2	34·1	5·39	30·1
July	19·7	4·41	10·1	21·3	4·52	6·0	25·2	3·66	23·1
Aug.	24·5	4·07	20·0	14·9	3·54	4·9	89·4	7·05	60·3
Sept.	13·5	3·41	16·8	13·2	2·35	5·0	22·1	3·99	46·2
Oct.	16·3	3·12	26·6	11·7	2·20	3·6	66·6	6·43	66·3
Nov.	11·0	2·67	17·6	6·7	1·69	2·5	37·7	5·15	49·9
Dec.	7·9	2·22	14·2	4·7	1·38	3·8	24·8	3·98	37·8
Year	13·9	3·09	15·4	12·1	2·59	3·1	34·4	4·02	41·8
Winter	7·8	2·43	13·9	6·1	1·58	2·6	22·8	3·65	34·9
Equinox	13·5	3·11	18·3	13·6	2·57	3·3	37·8	4·59	52·6
Summer	22·4	4·14	14·4	19·7	3·88	5·3	45·1	5·02	39·4

NON-CYCLIC CHANGE

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	All days			Quiet days			Disturbed days		
	H	*D*	*V*	*H*	*D*	*V*	*H*	*D*	*V*
	γ	′	γ	γ	′	γ	γ	′	γ
Jan.	−0·1	+0·02	+0·1	+6·9	−0·35	−3·3	−4·4	+2·42	+9·2
Feb.	−0·3	−0·42	−1·4	+7·2	+1·05	+7·2	−19·0	−0·49	−9·5
Mar.	+0·8	+0·28	+0·3	+3·7	−0·07	+0·4	−27·6	−1·77	−20·9
Apr.	−0·2	+0·02	+1·4	+9·9	+0·20	−1·8	+38·1	+5·75	+25·3
May	−1·2	−0·09	−1·1	+1·5	−0·52	−2·5	−39·8	−0·40	−12·4
June	+1·5	+0·19	+1·2	+3·4	+0·13	−0·3	+3·7	+0·20	+0·4
July	−0·7	−0·05	−0·1	+2·3	+0·62	−4·0	−28·9	−1·41	−2·4
Aug.	0·0	−0·30	−0·6	+5·2	+0·28	+0·7	+0·9	−0·56	+36·9
Sept.	+0·1	+0·13	+1·4	+9·5	−0·78	+6·5	−57·6	−1·83	−14·3
Oct.	+0·1	−0·03	+0·1	+11·2	+0·55	+6·0	+203·4	+9·71	+57·9
Nov.	+0·3	+0·02	+0·2	+5·7	+1·55	−9·8	+46·1	+3·07	+43·2
Dec.	−0·4	−0·17	−0·2	+11·1	+1·56	−5·7	−22·5	−2·11	−4·4
Year	0·0	−0·03	+0·1	+6·5	+0·35	−0·5	+7·7	+1·05	+9·1
Winter	−0·1	−0·14	−0·3	+7·7	+0·95	−2·9	+0·1	+0·72	+9·6
Equinox	+0·2	+0·10	+0·8	+8·6	−0·03	+2·8	+39·1	+2·97	+12·0
Summer	−0·1	−0·06	−0·1	+3·1	+0·13	−1·5	−16·0	−0·54	+5·6

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October, and "Summer" May to August.

MEAN MONTHLY AND ANNUAL VALUES OF TERRESTRIAL MAGNETIC ELEMENTS

For all, *a*, quiet, *q*, and disturbed, *d*, days for *H*, *D* and *V* and for all days for *N*, *W*, *I* and *T*

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	Horizontal force			Declination (west)			Vertical force			North component all days	West component all days	Inclination (north) all days	Total force all days
	a	*q*	*d*	*a*	*q*	*d*	*a*	*q*	*d*				
	14,000γ +			11° +			46,000γ +						
	γ	γ	γ	′	′	′	γ	γ	γ	γ	γ	° ′	γ
Jan.	365	363	373	4·4	4·2	5·1	1005	1005	1006	14185	2759	73 0·4	49151
Feb.	363	367	359	3·8	3·7	3·9	1000	997	1002	14183	2756	73 0·4	49145
Mar.	360	366	338	2·8	2·9	2·2	998	1001	974	14181	2752	73 0·6	49143
Apr.	365	366	353	2·2	2·4	1·5	999	1004	987	14187	2750	73 0·3	49146
May	364	372	342	1·7	1·5	2·1	1005	1010	1003	14186	2748	73 0·5	49150
June	377	377	371	1·7	1·6	0·9	1001	1001	995	14199	2750	72 59·5	49151
July	377	376	373	1·1	1·0	1·7	997	994	998	14199	2748	72 59·4	49147
Aug.	358	367	312	0·0	−0·1	−0·5	1003	1009	974	14181	2740	73 0·8	49148
Sept.	362	363	358	−1·1	−0·8	−1·7	1013	1017	1011	14186	2736	73 0·8	49158
Oct.	349	364	305	−2·5	−2·0	−3·6	1023	1022	1009	14174	2728	73 1·9	49164
Nov.	368	375	356	−2·9	−2·5	−4·3	1031	1031	1028	14194	2730	73 0·7	49177
Dec.	381	385	390	−3·0	−2·6	−2·4	1027	1023	1043	14207	2732	72 59·8	49177
Year	366	370	353	0·7	0·8	0·4	1009	1009	1003	14189	2744	73 0·4	49155

64 LERWICK

Night commencing				Night commencing				Night commencing			
			JANUARY				MARCH (contd.)				SEPTEMBER (contd.)
1	c	..	Cloudy	9	c-ca	..	Cloudy becoming fine	19	c	..	Cloudy
2	ca-c	⌀	Bands and green rays, moderate intensity, 18h. to 20h.	10	ca	..	Mainly cloudy	20	c	..	Cloudy
				12	c-ca	..	Cloudy becoming fine	21	cb	..	Mainly cloudy: moonlight
3	a	⌀	Moderate activity 17h.45m. to 22h.30m. Rayed band 18h.30m.	13	a	⌀	Weak homogeneous and rayed arcs 19h.30m. to 20h.30m.	22	cb	..	Variable cloud: moonlight
								25	cb	⌀	Weak diffuse surface 21h.45m. Bright rays, draperies and flaming aurora 0h.50m. to 1h.30m. Glow until 1h.50m.
			Rays, vivid green at times 20h. to 22h.30m.	14	b	⌀	Weak rays 19h.25m. to 20h.15m. Feeble glow 20h.15m. to 22h.30m.				
4	a	..	Fine	15	b-c	..	Variable cloud becoming cloudy				
5	a	⌀	Weak glow	16	c	..	Variable cloud	27	c	..	Cloudy
6	a	..	Fine	17	c	..	Variable cloud	28	c	..	Cloudy
7	a	..	Fine	20	c	..	Cloudy*	29	c-ca	⌀	Weak diffuse surface seen 19h.30m. through breaks in cloud. Bright draperies and flaming aurora 2h. to 2h.25m. Glow until 3h.5m.
8	c	..	Cloudy becoming variable by 21h.	21	ca	..	Mainly cloudy				
9	a	..	Variable cloud	22	c	..	Variable cloud				
10	ca	..	Variable cloud	25	b	..	Fine: bright moonlight				
12	ca	..	Variable cloud	26	b	..	Mainly fine				
13	c-ca	..	Cloudy becoming variable by 21h.	27	ca	..	Fog patches	30	c	⌀	Weak diffuse surface visible 20h.15m. through breaks in cloud
14	a	..	Variable cloud	29	c	..	Cloudy				
15	a	..	Fine								
16	a-ca	..	Variable cloud early becoming cloudy at 20h.								
17	ca	..	Cloudy				APRIL				
19	ca	..	Cloudy								
20	a	..	Variable cloud	1	ca	..	Mainly cloudy				OCTOBER
21	a	⌀	Weak glow 20h.45m. to 22h.	2	a	⌀	Weak glow				
22	a	..	Variable cloud	3	c	..	Mainly cloudy				
23	ca	..	Mainly cloudy	4	ca	..	Variable cloud	2	ca	⌀	Weak glow 20h.15m. to 20h.45m. seen through break in cloud
24	ca	..	Cloudy	5	ca	..	Variable cloud				
27	bc	..	Variable cloud. Moonlight	6	ca	..	Mainly cloudy	3	c-ca	⌀	Weak diffuse surface 22h. to 24h. with occasional rays of moderate intensity 22h.30m.
28	ca	..	Mainly cloudy	8	c	..	Cloudy				
31	bc-b	..	Cloudy becoming fine	9	ca-a	..	Cloudy becoming fine				
				10	c	..	Cloudy	4	ca	⌀	Weak glow 20h.30m. seen through breaks in cloud
				11	c	..	Cloudy				
				12	c-ca	⌀	Weak glow	5	c	..	Cloudy
			FEBRUARY	13	ca-a	⌀	Weak glow	6	ca	⌀	Weak diffuse surface seen 20h. to 22h. through cloud breaks
				14	ca	..	Variable cloud				
2	ca	..	Mainly cloudy	16	ca	..	Mainly cloudy	7	a	⌀	Weak diffuse surface 19h.40m. to 21h.30m. with feeble rays 20h.30m.
3	a-ca	..	Variable cloud	17	a	..	Fine				
4	a	⌀	Weak glow 20h. to 01h. observed through cloud breaks	22	ca-c	..	Cloudy	12	c-cb	..	Variable cloud: moonlight
				24	ca-a	⌀	Rays, moderate intensity, 23h.	13	cb	..	Variable cloud: moonlight
6	ca-a	..	Variable cloud	25	ca-a	⌀	Weak glow 23h.	14	b	⌀	Bright display 20h.45m. to 0h.20m. with coronae, rays and draperies during period of maximum intensity from 22h. to 24h.
7	ca	..	Variable cloud	26	c	..	Cloudy				
8	c	..	Cloudy	27	c	..	Cloudy				
9	c-ca	..	Variable cloud	28	ca	..	Mainly cloudy				
10	c-ca	..	Cloudy becoming fine	29	ca	..	Variable cloud				
12	a	..	Variable cloud becoming fine	30	ca	..	Variable cloud				
13	a	⌀	Weak homogeneous arc and rayed arc 22h. to 23h.30m. but weak glow persisted until later					15	cb	..	Cloudy: bright moonlight
								16	b	..	Variable cloud: bright moonlight
								17	cb	⌀	Moderate diffuse surface 0h.30m. Moderate rays developing into bright red rays 0h.45m. to 1h.30m. Activity decreased until obscured by cloud at 1h.45m.
15	ca	⌀	Feeble activity seen through cloud breaks				SEPTEMBER				
17	ca	..	Mainly cloudy	1	a	..	Fine				
19	c	..	Cloudy	6	ca-a	⌀	Weak arc and ray formation 1h.30m. to 2h. Diffuse surface 2h. to 3h.	18	cb	..	Cloudy
20	a-c	..	Mainly cloudy					21	b-cb	⌀	Rays, moderate intensity 20h.20m. Weak glow until 21h.15m.
21	c-ca	..	Mainly cloudy	7	ca	..	Cloudy				
22	c-a	..	Cloudy becoming fine	8	c-ca	⌀	Weak glow with feeble rays 1h.30m. to 2h.15m.	22	cb	⌀	Weak diffuse surface seen 20h. to 21h. through cloud breaks
23	c	..	Cloudy								
24	c	..	Cloudy	9	ca-c	..	Variable cloud becoming cloudy				
25	a-c	..	Variable cloud becoming cloudy	10	a	..	Fine	23	c	..	Cloudy
26	c	..	Cloudy	11	ca-a	..	Mainly cloudy	25	c	..	Cloudy
27	ca	..	Variable cloud	12	a	⌀	Pulsating surface and rays, moderate intensity 1h.30m. to 1h.45m. Weak diffuse surface persisted until 2h.30m.	26	a-ca	⌀	Mainly weak display 18h. to 22h.30m. but slightly increased intensity at 22h. with rays
28	ca	..	Variable cloud								
29	a-c	..	Mainly cloudy					27	a	⌀	Rayed band, moderate intensity 20h. to 21h.
				13	c	..	Cloudy				
			MARCH	14	ca-cb	..	Cloudy: moonlight	28	ca	..	Variable cloud
				15	c	..	Cloudy: moonlight	29	ca-a	..	Variable cloud
5	ca-a	..	Variable cloud becoming fine	16	cb	..	Cloudy: bright moonlight	30	c	..	Mainly cloudy
7	ca	..	Mainly cloudy	17	c-cb	..	Bright moonlight	31	c	..	Mainly cloudy

64 LERWICK (contd.)

Night commencing				Night commencing				Night commencing			
			NOVEMBER				NOVEMBER (contd.)				DECEMBER (contd.)
1	ca-c	⫝̸	Weak diffuse surface 20h. to 23h.15m. with moderate green rays 22h.10m. to 22h.30m.	22	b-cb	..	Fine becoming cloudy: bright moonlight	16	b	⫝̸	Rayed arc, moderate intensity appeared suddenly 18h.29m. and disappeared equally suddenly 18h.43m. Green colouration with trace of red
3	a-ca	⫝̸	Weak diffuse surface seen 18h. to 22h. through cloud breaks	24	a-c	⫝̸	Weak diffuse surface obscured by cloud 21h.	17	c	..	Cloudy
5	a	..	Fine	25	ca	..	Variable cloud	18	c	..	Cloudy
6	a-ca	..	Variable cloud	26	a	..	Very fine	19	b-cb	..	Mainly cloudy
7	a	⫝̸	Weak glow throughout evening	27	a-ca	..	Variable cloud	20	a-c	..	Fine becoming cloudy
8	ca	⫝̸	Weak glow throughout evening	28	ca-a	⫝̸	Weak diffuse surface	21	ca	⫝̸	Weak glow seen 18h. to 22h. through cloud breal
9	cb	⫝̸	Weak glow throughout evening	29	ca	..	Mainly cloudy	22	c	..	Cloudy
10	cb	..	Mainly cloudy					23	a	⫝̸	Weak display 19h.50m. to 24h.
11	c	..	Cloudy					24	a-ca	⫝̸	Weak to moderate diffuse surface, red at times 18h. to 21h.
13	c	..	Cloudy				DECEMBER	25	c-ca	⫝̸	Weak diffuse surface seen 18h. to 22h. through cloud breaks
15	c-b	⫝̸	Bright green draperies with isolated bundles of rays 21h.45m. to 22h. Activity gradually diminishing until cessation at 22h.25m.	1	a	..	Very fine	26	a	⫝̸	Weak display 19h.30m. to 20h.30m.
				3	ca-c	..	Variable cloud	27	ca	..	Mainly cloudy
				4	a	⫝̸	Weak glow 18h. to 22h.	28	c-ca	..	Cloudy becoming variable cloud
				6	c	⫝̸	Weak diffuse surface seen 21h. to 21h.45m. through cloud breaks	29	c	..	Variable cloud
16	c	..	Cloudy					30	a-c	⫝̸	Weak diffuse surface 19h. Moderate draperies and rays 19h.45m. and bright rayed band 20h. to 20h.15m. Activity then decreasing until obscured by cloud 20h.30m.
18	cb	..	Cloudy or variable cloud	8	c	..	Cloudy				
19	c-cb	..	Cloudy becoming fine: bright moonlight	10	b-c	..	Fine becoming overcast: moonlight				
				12	cb-c	..	Variable cloud becoming overcast: moonlight				
21	b-cb	..	Fine becoming cloudy: bright moonlight	15	cb	..	Cloudy: moonlight	31	a	..	Mainly fine

In the interests of brevity there have been omitted from Table 64 all dates on which the sky throughout the evening remained completely overcast and on which, therefore, no opportunity arose of determing whether or not aurora occurred. The nights on which aurora was actually seen are indicated by the symbol ⫝̸. The nights on which aurora was not seen, despite at least an occasional interval of more or less clear sky, are indicated by the symbol ..; in the latter case also, remarks on the weather are added to assist the reader in judging how far the fact of no observation of aurora may be taken as indicating that there was not actual aurora.

The letters a, b, c, have the following significance:-

a = Conditions favourable for seeing aurora
b = Unfavourable for faint aurora (moonlight, mist, Cs, etc.) but not such as to mask bright aurora
c = Cloudy, but aurora not seen in clear intervals
ca, cb = Have been used for "Cloudy, with conditions a or b in the intervals"
Changing conditions have been indicated by a hypen, e.g., a-c

65 OTHER SCOTTISH STATIONS

Night commencing		Night commencing		Night commencing	
	JANUARY		APRIL (contd.)		OCTOBER (contd)
2	Tiree	24	Wick	3	Wick; Eskdalemuir; Nairn (2000) Duntuilm
3	Duntuilm; Tiree; Stornoway Wick (1800) Hatston (18-22)	25	Wick	4	Prestwick
5	Stornoway (0100)	30	Wick	7	Wick
7	Duntuilm; Tiree; Stornoway; Benbecula; Hatston (0001 to N)			8	Wick; Hatston
8	Stornoway		MAY	11	Stornoway
9	Stornoway			12	Tiree; West Linton
12	Stornoway	1	Wick	15	Hatston; Leuchars
15	Edinburgh	2	Wick	17	Fortrose; Dyce (intense)
17	Buddonness	4	Stornoway	18	Stornoway; Hatston (very bright) Wick; Tiree
21	Wick	16	Tiree; Stornoway; Dyce Wick; Prestwick	19	Wick
22	Wick			24	Fortrose
23	Wick	17	Tiree; Prestwick	26	Wick
28	Stornoway	18	Prestwick	27	Fortrose; Prestwick Stornoway
		24	Prestwick	28	Wick
	FEBRUARY				
1	Wick; Stornoway		JUNE		
8	Hatston				NOVEMBER
11	Stornoway		Nil		
12	Wick; Duntuilm; Stornoway			1	Duntuilm; Benbecula Tiree; Stornoway
15	Wick; Stornoway				
18	Stornoway			2	Benbecula; Nairn
28	Stornoway		JULY		Stornoway
29	Wick			3	Nairn
			Nil	6	Wick; Benbecula
				7	Duntuilm; Wick; Tiree
	MARCH			8	Wick; Leuchars; Stornoway
				15	Tiree; Stornoway
1	Stornoway		AUGUST	20	Glenlivet; Buddonness
2	Tiree; Wick			22	Wick
4	Hatston	9	Dyce	24	Wick (1800) Hatston (1800 to N)
9	Wick	10	Benbecula	25	Wick
10	Stornoway	20	Paisley		
13	Wick	21	Stornoway		
14	Wick				
15	Benbecula; Stornoway Wick; Tiree				DECEMBER
30	Glenlivet; Wick		SEPTEMBER	3	Wick
31	Hatston (mod) Wick			4	Wick
		1	Nairn (2330) Benbecula Tiree	5	Wick
				7	Benbecula
		2	Tiree	9	Stornoway
	APRIL	9	Hatston (0001) Wick (01-02)	21	Duntuilm
		11	Nairn (2400)	23	Wick; Benbecula; Tiree
3	Hatston; Wick; Prestwick Airport; Tiree	12	Hatston	24	Wick; Stornoway; Tiree Benbecula
4	Wick	30	Benbecula	25	Glenlivet; Onich; Wick; Edinburgh
5	Stornoway				
6	Stornoway; Wick			26	Wick
7	Duntuilm; Wick		OCTOBER	30	Wick; Stornoway; Dyce West Freugh; Ardrishaig; Eskdalemuir; Buddonness
8	Wick				
13	Wick; Nairn	1	Nairn (2300)		
14	Wick; Tiree	2	Wick	31	Dyce; West Freugh

ESKDALEMUIR

ESKDALEMUIR OBSERVATORY

Latitude	55°19′N.
Longitude	3°12′W.
G.M.T. of Local Mean Noon ..	12h.13m.
Height of site above M.S.L. ..	235 to 250 metres

INTRODUCTION

Reference should be made to the 1938 volume for details of site and meteorological instruments. The only important change since that date was the replacement of the Beckley rain-gauge by the Dines tilting-siphon rain-gauge in September 1940.

Notes on the meteorological summaries

The extreme temperatures during the year were 301·9°A. (84·0°F.) on 29 July and 265·0°A. (17·6°F.) on 26 December. With a mean temperature of 269·2°A. (25·2°F.), 26 December was also the coldest day of the year and 29 July, with 294·9°A. (71·4°F.) was the hottest. There was one "ice-day", i.e. a day with maximum temperature below 273°A.

The total rainfall for the year 1875·3 mm. (73·83 in.) was 31·2 per cent greater than the mean for the period 1911-30. Snow fell on 41 days. The total duration of bright sunshine, 1188·9 hr., was nearly average.

The highest gust of wind during the year was 36·4 m./sec. (81·5 m.p.h.) on 9 February. The highest hourly speed 19·0 m./sec. (42·6 m.p.h.) was on 7 December.

The results of the harmonic analysis of the diurnal inequalities of pressure are set out in the accompanying table. For the purposes of comparison the corresponding data are also given, derived from the mean inequalities for the period 1911-20 by Dr. A. Crichton Mitchell*.

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*MITCHELL, A.C.; On the diurnal variation of atmospheric pressure at Eskdalemuir and Castle O'er, Dumfriesshire. *Quart. J.R. met. Soc., London*, **50**, 1924, p.127.

TABLE 66 - HARMONIC COEFFICIENTS OF THE DIURNAL INEQUALITY OF ATMOSPHERIC PRESSURE

Values of c_n, α_n in the series $\Sigma c_n \sin(15nt + \alpha_n)$, t being local mean time reckoned in hours from midnight

	c_1		α_1		c_2		α_2		c_3		α_3		c_4		α_4	
	1948	1911-1920	1948	1911-1920	1948	1911-1920	1948	1911-1920	1948	1911-1920	1948	1911-1920	1948	1911-1920	1948	1911-1920
	mb.	mb.	°	°	mb.	mb.	°	°	mb.	mb.	°	°	mb.	mb.	°	°
January	0.41	0.09	340	346	0.42	0.23	161	152	0.11	0.13	329	345	0.03	0.05	192	214
February	0.26	0.12	172	215	0.26	0.27	141	138	0.12	0.08	347	341	0.03	0.04	45	68
March	0.03	0.13	287	185	0.33	0.30	156	145	0.03	0.05	349	335	0.07	0.05	339	25
April	0.21	0.21	117	92	0.32	0.30	159	155	0.06	0.02	118	156	0.04	0.05	346	356
May	0.19	0.23	52	53	0.29	0.27	159	147	0.07	0.07	156	160	0.02	0.03	349	330
June	0.17	0.15	10	54	0.29	0.23	142	146	0.12	0.08	131	161	0.02	0.02	252	326
July	0.40	0.17	131	69	0.28	0.21	156	141	0.09	0.08	137	156	0.04	0.02	315	300
August	0.10	0.11	213	115	0.22	0.24	134	148	0.05	0.06	170	157	0.03	0.05	319	331
September	0.28	0.12	152	88	0.31	0.31	147	152	0.05	0.01	242	111	0.07	0.05	1	345
October	0.27	0.11	187	76	0.26	0.31	162	159	0.08	0.06	10	8	0.05	0.04	35	33
November	0.38	0.13	213	183	0.28	0.24	171	168	0.09	0.10	356	9	0.04	0.01	158	146
December	0.23	0.14	198	97	0.43	0.21	136	147	0.16	0.12	207	4	0.07	0.07	179	213
Arithmetic mean	0.24	0.14			0.31	0.26			0.09	0.07			0.04	0.04		
Year	0.09	0.09	164	91	0.30	0.26	153	150	0.02	0.02	19	42	0.02	0.02	336	342
Winter	0.14	0.04	225	165	0.34	0.24	152	151	0.12	0.11	346	355	0.03	0.02	165	189
Equinox	0.16	0.11	158	104	0.31	0.31	155	153	0.02	0.02	14	4	0.05	0.04	353	9
Summer	0.11	0.15	99	67	0.26	0.24	148	146	0.08	0.07	143	159	0.03	0.03	310	324

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

Terrestrial Magnetism

Reference should be made to the 1938 volume for notes on the instruments and tables.

Notes on the results

Comparing mean values on all days of 1948 with those for 1947, it is noted that *H* increased by 12γ, *D*(west) decreased by 8′·2 and *V* increased by 4γ. The changes in the deduced quantities *N*, *W*, *I*, and *T* are +20γ, −36γ, −0′·7 and +8γ. If these changes are compared with those for previous years, the discontinuities introduced on 1 January 1934 in *I* and *V* and the components derived from them must be kept in mind.

The ranges between the extreme values recorded during 1948 were *H* 1068γ, *D* 1°38′·6 and *V* 849γ. The range of 1°38′·6 in declination is equivalent to a range of about 474γ in the component of force perpendicular to the magnetic meridian.

The *K* index is fully described in *Terrestrial Magnetism and Atmospheric Electricity**. Briefly, a figure is allotted on a scale 0-9 to each three-hour interval. The figure is a measure of the range of magnetic force during that period, measured from a curved line which represents the normal quiet day variation. The figures are first allotted from the *H* magnetograms and then increased, if necessary, by inspection of the *D* and *V* curves so that the most disturbed component determines the final figure. The scale of ranges in γ

*BARTELS, J., HECK, N.H., and JOHNSTON, H.F.: The three-hour-range index measuring geomagnetic activity. *Terr. Magn. atmos. Elect., Baltimore, Ma.* **44**, 1939, p.411.

corresponding to the figures 0-9 varies from observatory to observatory. The lower limit of each number for Eskdalemuir is:

K	0	1	2	3	4	5	6	7	8	9
Range in γ	0	8	15	30	60	105	180	300	500	750

Beginning with 1947 some changes have been made in the tables accompanying these notes. The month by month commentary on the autographic records has been omitted, and a change has been made in the table formerly headed "Principal Magnetic Disturbances". It is intended that all the disturbances, which would have been included in the previous type of table, will still be included, with,however,additional disturbances of the form of sudden commencements and those which can be recognised as being solar flare effects. The table is thus divided into three parts:

(a) Disturbances noteworthy for some reason (usually, but not always, range) and without a sudden commencement.

(b) Well marked sudden commencements whether followed by a large disturbance or not.

(c) Disturbances accompanying a solar flare or other know solar flare effect.

The time given of commencement and ending of disturbances in (a) must depend on an arbitrary judgment. The list of sudden commencements under (b) will usually be a little shorter than that given in the International Association of Terrestrial Magnetism and Electricity Bulletins because a somewhat stricter meaning has been given to the words "well marked", and also because the sharp beginnings of small polar disturbances have been omitted. The (c) table has been made as complete as possible by a careful scrutiny of the magnetograms at the time of any known solar flare or solar flare effect, but a small "crochet" can easily be masked by other disturbance. The signs given to the movements of *H*, *D*, and *V* are positive for increasing *H* or *V* and an increase of force towards the east (i.e. a decreasing westerly declination).

Particulars of the same disturbances are given in both the Lerwick and Eskdalemuir sections of the *Observatories' Year Book*, even if the disturbances at one of the stations is relatively small. In Table 67 the values of mean absolute daily range for the months and seasons are brought together. For convenience of comparison the ranges of declination in angle have been converted to units of force of the component perpendicular to the magnetic meridian. Table 68 gives the frequency distribution of absolute daily ranges and compares the percentage distribution for 1948 with that for the 11-year period 1932-1942. Table 69 gives the average values of the diurnal inequality ranges for the year and seasons for period 1932-1942 (not the values of the range of the representative mean diurnal inequalities for this period) along with the 1948 values expressed as a percentage of the average values. The units employed are 1γ for force and 1′ for declination.

TABLE 67 - ABSOLUTE DAILY RANGE AND MEAN MONTHLY VALUES

	Mean absolute daily range						Mean daily range expressed as percentage of yearly mean					
	1948			Mean 1932-42			1948			Mean 1932-42		
	H	*D*	*V*	*H*	*D*	*V*	*H*	*D*	*V*	*H*	*D*	*V*
	γ	γ	γ	γ	γ	γ	%	%	%	%	%	%
January	71	83	45	78	79	44	67	86	67	81	91	77
February	72	80	44	76	86	50	68	83	66	79	99	88
March	107	99	65	122	113	82	101	103	97	127	130	144
April	107	94	61	125	103	79	101	98	91	130	118	139
May	140	101	83	111	86	66	132	105	124	116	99	116
June	112	94	54	100	81	50	106	103	81	104	93	88
July	102	92	52	106	82	53	96	96	78	110	94	93
August	137	110	86	102	85	57	129	115	128	106	98	100
September	95	96	59	102	95	64	90	100	88	106	109	112
October	162	132	130	97	94	65	153	137	194	101	108	114
November	90	92	65	67	75	41	85	96	97	70	86	72
December	80	82	54	61	69	40	75	85	81	64	79	70
Winter	78	84	52	70	77	44	74	87	78	73	89	77
Equinox	118	105	79	111	101	72	111	109	118	116	116	126
Summer	123	99	69	105	84	57	116	103	103	109	97	100
Year	106	96	67	96	87	57	..	..	..	..	..	..

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

TABLE 68 - FREQUENCY DISTRIBUTION OF ABSOLUTE DAILY RANGE

Range	Number of cases, 1948			Percentage distribution					
				H		*D*		*V*	
	H	*D*	*V*	1948	1932-42	1948	1932-42	1948	1932-42
γ				%	%	%	%	%	%
0 - 9	0	0	3	0·0	0·0	0·0	0·0	0·8	3·0
10 - 19	0	0	31	0·0	1·0	0·0	0·4	8·5	15·8
20 - 29	4	2	51	1·1	4·2	0·5	2·9	13·9	22·1
30 - 39	9	12	64	2·5	6·6	3·3	5·7	17·5	16·8
40 - 49	21	20	52	5·7	8·7	5·5	8·1	14·2	9·5
50 - 59	22	23	40	6·0	11·4	6·3	13·2	10·9	6·9
60 - 69	44	27	31	12·0	13·2	7·4	14·0	8·5	5·1
70 - 79	36	42	12	9·8	10·6	11·5	12·5	3·3	3·4
80 - 89	38	76	16	10·4	9·3	20·8	10·3	4·4	2·7
90 - 99	36	47	8	9·8	6·9	12·8	7·8	2·2	2·3
100 - 109	32	33	8	8·7	5·3	9·0	5·3	2·2	1·8
110 - 119	40	15	8	10·9	4·5	4·1	3·8	2·2	1·4
120 - 129	22	17	8	6·0	2·9	4·6	3·3	2·2	1·4
130 - 139	12	9	6	3·3	2·7	2·5	2·5	1·6	0·9
140 - 149	7	9	3	1·9	1·8	2·5	1·8	0·8	0·8
150 - 159	5	7	5	1·4	1·9	1·9	1·7	1·4	0·5
160 - 169	5	6	0	1·4	1·3	1·6	1·4	0·0	0·5
170 - 179	9	2	2	2·5	1·0	0·5	0·8	0·5	0·2
180 - 189	0	5	1	0·0	0·8	1·4	0·8	0·3	0·5
190 - 199	5	2	0	1·4	0·7	0·5	0·7	0·0	0·4
200 +	19	12	17	5·2	5·2	3·3	3·1	4·6	4·0
Days omitted	0	0	0	..	..	..	..	..	..

TABLE 69 - AVERAGE RANGE OF DIURNAL INEQUALITY 1932-1942
WITH 1948 VALUE AS PERCENTAGE

		All days					International quiet days					International disturbed days				
		N	*W*	*V*	*H*	*D*	*N*	*W*	*V*	*H*	*D*	*N*	*W*	*V*	*H*	*D*
		γ	γ	γ	γ	'	γ	γ	γ	γ	'	γ	γ	γ	γ	'
Year	1932-42	37.5	40.1	25.4	36.9	8.54	34.2	37.9	12.8	33.6	8.17	51.6	55.2	71.7	52.1	11.47
	1948(%)	128	124	116	128	94	129	125	130	131	125	110	102	115	108	105
Winter	1932-42	21.0	30.2	19.5	18.5	6.70	17.6	19.1	5.6	15.7	4.23	29.2	51.9	61.0	28.8	10.86
	1948(%)	150	120	128	155	155	157	133	121	162	134	130	117	113	125	155
Equinox	1932-42	44.6	46.4	32.1	42.6	10.02	40.1	43.8	13.9	38.8	9.56	71.2	72.4	94.5	72.8	14.56
	1948(%)	119	113	107	118	114	123	118	123	125	119	97	100	114	92	107
Summer	1932-42	55.6	56.7	29.8	58.0	11.66	47.7	53.8	20.8	49.2	11.37	77.3	65.8	71.6	82.2	12.51
	1948(%)	130	123	130	131	119	126	125	136	129	126	122	110	112	119	107

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

TABLE 70 - NOTEWORTHY MAGNETIC DISTURBANCES AT ESKDALEMUIR

(a) Disturbances without S.C's

Serial Number	From Date	From Hour	To Date	To Hour	Range (γ) *H*	Range (γ) *D*	Range (γ) *V*	Notes
1a	Jan. 3	10	Jan. 3	23	347	328	316	
2a	Mar. 14	15	Mar. 15	24	658	312	515	
3a	Apr. 20	21	Apr. 21	04	222	218	250	
4a	May 14	13	May 17	03	271	220	352	
5a	May 21	00	May 23	09	273	148	230	
6a	Oct. 14	06	Oct. 15	24	244	184	280	
7a	Nov. 1	17	Nov. 3	05	241	250	282	
8a	Nov. 20	11	Nov. 21	07	289	175	315	
9a	Dec. 25	13	Dec. 26	05	299	184	282	

(b) Disturbances with a S.C.

Serial Number	Date	Time of S.C.	End of Disturbance Date	End of Disturbance Hour	With initial reversed stroke *H*	With initial reversed stroke *D*	With initial reversed stroke *V*	Magnitude main stroke of S.C. *H*	Magnitude main stroke of S.C. *D*	Magnitude main stroke of S.C. *V*	Range of following disturbance (γ) *H*	Range of following disturbance (γ) *D*	Range of following disturbance (γ) *V*
								γ	γ	γ			
1b	Jan. 27	06.37			No	Yes	No	+10	−14	0		Small	
2b	Feb. 3	02.08			No	Yes	No	+35	−24	−4		Small	
3b	Feb. 10	02.02			No	Yes	No	+20	−11	−2		Small	
4b	Feb. 26	19.34			Yes	No	No	+30	−10	−5		Small	
5b	Mar. 30	17.20			Yes	No	No	+35	−10	−2		Small	
6b	Apr. 6	03.57			Yes	Yes	No	+28	−35	−4		Small	
7b	June 11	19.00			Yes	Yes	No	+44	−12	−5		Small	
8b	July 26	08.40			Yes	Yes	No	−8	−9	0		Small	
9b	Aug. 4	09.50	Aug. 5	19	Yes	Yes	No	−10	+13	−2	163	67	84
10b	Aug. 7	03.10			Yes	Yes	No	+24	−19	0		Small	
11b	Aug. 7	23.00	Aug. 13	08	Yes	Yes	No	+80	−39	−10	765	415	515
12b	Aug. 19	19.37	Aug. 22	01	Yes	No	No	+80	−14	−8	181	206	161
13b	Sept. 12	11.26			Yes	Yes	Yes	+20	+15	−3		Small	
14b	Sept. 21	18.58			No	Yes	No	+56	−14	−6		Small	
15b	Oct. 1	01.13	Oct. 4	01	Yes	Yes	No	+58	−24	−8	165	179	224
16b	Oct. 17	22.10	Oct. 19	21	No	Yes	No	+90	+72	−12	937	447	719
17b	Dec. 30	13.43	Dec. 31	19	Yes	Yes	No	−2	+5	0	140	144	147

(c) Disturbances due to Solar Flare

Serial Number	Date	Commence-ment	Max.	End	Movement (γ) H	D	V	K	K'	Flare or S.F.E.
1c	Mar. 11	12.13	12.27	?	-9	+4	0	2	2	(S.P.A. (F.O. Flare 3
2c	Mar. 20	12.23	12.28	12.50	-36	+14	+7	3	2	(S.P.A. (F.O.
3c	Apr. 20	12.22	12.29	12.45	-29	+7	+3	3	2	(S.P.A. (F.O.
4c	Dec. 9	11.48	11.54	12.08	-19	+4	+3	2	1	F.O.
5c	Dec. 23	12.10	12.20	12.33	-22	0	+4	1	1	F.O.

F.O. = Fade out. S.P.A. = Sudden Phase Anomaly.

Irregular changes in declination:- In connexion with the supply of declination data to mine surveyors, it has been the practice to classify the hourly periods between the exact hours G.M.T. into four groups according to the range in declination within each period. The range limits which were adopted in consultation with representative mine surveyors are: less than 5′, between 5′ and 15′, between 15′ and 30′, and greater than 30′. The range is less than 5′ in about 85 per cent of the hourly periods. The actual frequencies of occurrence in the last three of the four divisions mentioned are set out below.

Number of cases per month

Range interval	*Jan.*	*Feb.*	*Mar.*	*Apr.*	*May*	*June*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*Year*
5′ to 15′	76	89	119	92	127	65	56	106	88	169	116	89	1192
15′ to 30′	5	4	19	5	9	1	2	21	4	29	14	12	125
>30′	4	0	3	0	1	0	0	5	0	7	1	1	22

Hourly distribution

Range interval	*Hour ending at (G.M.T.)* 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
5′ to 15′	62	59	60	59	51	41	41	37	40	33	61	73	45	36	25	34	42	45	42	53	63	60	62	68
15′ to 30′	8	5	5	4	6	4	5	7	4	2	2	0	0	2	3	4	7	6	5	9	12	12	7	6
>30′	1	1	1	0	1	0	1	1	1	0	0	0	0	0	0	1	1	2	3	3	1	0	1	3

PRESSURE AT STATION LEVEL

Maximum, minimum and daily mean values in millibars for each day 0h. to 24h., G.M.T.
The initial 9 or 10 of the values is omitted, i.e. 1005·61 is printed 05·61

71 ESKDALEMUIR: h_b(height of barometer cistern above M.S.L.) = 237·3 m.

	JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE		
	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean
	millibars																	
1	75·7	66·9	70·8	86·1	68·8	79·6	08·7	07·4	08·0	57·1	*33·9*	*43·6*	73·9	71·5	72·8	72·9	70·6	72·2
2	74·6	69·8	72·0	72·8	*62·0*	*67·9*	07·9	02·9	05·0	60·6	53·0	57·3	80·6	73·5	76·9	76·0	64·2	67·2
3	77·9	71·3	75·6	72·6	69·0	70·9	10·4	05·5	08·1	64·9	53·0	59·4	82·7	78·1	81·0	70·2	61·0	*63·7*
4	70·5	57·6	66·3	85·0	70·6	77·2	*11·3*	08·2	*09·6*	64·9	62·3	63·5	78·1	*68·5*	*71·6*	76·5	70·2	74·0
5	74·0	57·1	67·1	85·0	69·3	77·3	08·2	02·8	05·0	76·3	64·0	69·8	86·4	68·5	76·3	76·4	72·5	75·3
6	72·4	52·5	65·1	82·3	68·8	74·1	02·8	96·2	99·1	76·1	72·8	74·3	98·3	86·4	93·0	75·3	*54·9*	68·6
7	57·3	47·5	*50·6*	82·3	71·9	76·2	96·2	94·4	95·2	76·2	59·1	69·6	*03·6*	98·1	*01·3*	86·4	65·8	78·0
8	69·2	57·3	64·5	80·8	66·7	75·8	01·3	93·4	98·3	70·5	56·0	60·7	03·3	96·5	00·0	89·4	79·3	84·1
9	69·7	66·6	68·5	92·1	66·7	82·4	01·0	96·6	99·3	87·5	70·5	82·1	96·5	85·7	90·6	*96·5*	89·4	93·4
10	80·1	69·4	76·0	88·9	74·5	80·9	07·8	99·7	03·5	90·0	86·1	87·1	85·7	79·2	81·8	95·5	93·7	94·7
11	70·2	56·2	61·0	89·0	71·2	81·1	08·5	05·5	07·4	97·1	90·0	93·8	83·7	79·0	81·0	93·7	91·3	92·7
12	67·4	60·5	64·3	86·5	73·6	80·9	06·0	02·6	03·9	98·7	95·9	97·2	87·8	82·9	84·9	92·5	89·5	91·1
13	69·6	58·6	63·2	91·9	84·9	87·9	08·2	05·0	06·3	98·0	92·1	94·6	89·2	86·9	87·8	91·6	88·2	90·1
14	73·3	68·0	71·2	91·4	83·7	86·8	05·0	95·7	00·9	95·5	93·2	94·3	99·8	89·2	95·6	88·2	83·9	86·2
15	79·4	66·9	71·8	99·2	86·1	92;4	95·7	83·2	88·6	95·4	93·8	94·6	00·9	98·9	00·0	83·9	77·0	80·6
16	*84·1*	73·2	*80·9*	01·1	99·2	00·4	87·1	82·7	85·0	93·9	88·5	90·9	01·5	99·6	00·4	77·9	74·8	76·6
17	73·2	*45·1*	58·3	03·0	99·8	01·0	85·2	78·3	82·1	89·4	78·6	83·6	01·8	00·3	01·1	77·7	72·7	75·4
18	54·0	48·6	51·9	08·4	03·0	05·8	87·4	79·3	84·2	82·9	75·6	78·4	01·9	99·3	00·8	77·0	74·4	75·3
19	54·8	50·4	52·2	*09·5*	06·5	*08·4*	84·8	77·0	80·7	84·8	82·9	84·0	99·3	96·9	97·8	85·3	75·2	79·4
20	69·3	54·2	60·4	06·6	01·7	03·2	86·6	83·9	85·5	86·1	83·8	84·4	97·2	95·5	96·3	88·5	84·7	86·9
21	71·3	64·2	68·2	03·5	97·2	00·7	85·2	81·7	83·4	86·1	80·6	84·0	96·8	91·2	93·7	84·7	78·8	80·5
22	72·2	64·1	68·9	97·7	95·8	96·5	95·3	84·1	89·0	82·2	75·0	77·8	91·7	85·9	88·8	84·3	77·9	79·7
23	77·7	72·2	75·0	99·2	95·4	97·2	99·2	95·3	97·6	92·8	82·2	86·0	85·9	77·6	81·4	96·0	84·3	90·2
24	77·3	69·8	74·1	00·1	98·5	99·3	99·4	98·2	98·6	05·0	92·8	98·6	81·6	76·3	77·9	95·8	95·0	*95·4*
25	70·0	58·4	65·4	00·2	98·7	99·5	98·7	96·7	98·1	*12·4*	05·0	*10·0*	84·4	81·6	82·9	95·6	93·7	94·6
26	58·2	49·8	52·7	01·4	99·3	00·1	00·2	98·5	99·3	12·1	05·2	09·3	82·7	79·6	81·0	93·7	83·8	88·4
27	59·2	53·9	57·6	99·7	92·2	95·3	99·4	97·0	98·4	05·2	80·0	95·4	84·5	82·1	83·0	83·8	73·0	78·5
28	59·2	57·0	58·3	01·0	94·9	97·9	97·1	87·2	91·7	80·0	67·4	72·4	84·6	83·5	84·1	87·4	72·8	80·8
29	63·3	55·9	57·7	07·8	01·0	04·6	87·2	71·8	80·4	73·6	66·8	69·2	85·6	84·0	84·7	87·7	85·6	86·8
30	64·8	48·7	56·6				71·8	62·3	67·1	73·5	66·8	70·4	85·3	78·1	82·9	91·5	86·9	88·5
31	71·6	56·3	63·6				71·7	*37·5*	*54·4*				78·1	72·3	74·3			
Mean	69·73	59·61	64·83	93·97	85·21	89·70	97·27	90·67	93·99	85·63	76·90	81·21	90·11	84·73	87·27	85·73	78·84	82·30

	JULY			AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER		
	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean
	millibars																	
1	96·4	91·2	93·2	89·1	85·5	87·5	83·9	74·0	80·6	01·8	92·7	95·9	84·4	80·0	81·5	96·1	83·6	90·6
2	*97·3*	94·7	*96·5*	86·1	84·0	84·8	83·3	61·5	70·6	92·7	90·6	91·5	80·0	71·0	76·4	83·6	69·6	74·0
3	94·7	84·0	90·7	90·6	85·9	88·0	71·7	*60·1*	*63·8*	90·8	87·9	89·3	70·7	63·6	68·1	76·9	69·1	71·9
4	84·7	76·4	79·8	90·6	86·7	89·2	87·5	71·4	81·2	96·6	87·8	91·7	63·6	*59·3*	*61·6*	94·6	76·9	88·4
5	90·5	84·7	88·2	86·7	81·5	84·3	87·4	82·0	84·1	98·8	96·6	97·3	77·2	59·8	67·6	92·6	74·8	84·7
6	94·0	90·5	92·6	81·5	72·5	77·6	84·2	81·3	82·5	97·8	95·4	96·8	85·9	77·2	83·1	76·1	69·8	73·9
7	93·3	88·4	90·9	72·5	63·7	67·4	83·7	77·5	79·6	00·1	96·4	97·6	93·3	83·7	87·1	73·3	59·0	67·5
8	94·9	91·5	93·0	70·0	*61·1*	*64·4*	89·4	79·9	85·0	*02·0*	96·9	*99·2*	03·7	93·3	00·3	78·1	67·3	73·8
9	95·0	93·1	94·0	79·6	70·0	75·5	91·1	83·4	88·8	96·9	93·8	95·0	02·3	90·2	95·0	76·4	63·9	69·2
10	93·8	87·1	92·0	81·8	79·5	80·9	83·4	76·5	78·4	94·2	90·0	91·7	94·6	91·3	93·4	73·5	68·3	72·0
11	87·1	75·4	79·6	81·8	76·1	78·6	77·0	74·8	75·8	90·3	78·0	84·8	96·9	92·8	95·0	68·6	57·3	66·5
12	75·4	68·6	70·7	78·2	75·5	76·9	79·7	74·1	76·1	80·5	78·4	79·7	96·8	90·6	94·3	66·1	53·5	61·3
13	78·8	71·6	74·7	90·2	77·7	85·4	82·2	76·9	79·7	79·6	68·0	73·5	91·9	90·1	91·0	65·8	60·7	63·3
14	80·4	78·4	79·5	90·6	83·1	88·3	89·0	79·3	85·8	71·9	64·1	68·0	90·1	85·2	87·5	68·4	60·0	63·6
15	81·5	80·0	80·8	83·1	76·5	77·8	96·9	80·0	88·6	73·6	68·0	69·9	86·4	79·1	81·9	88·4	68·4	78·1
16	85·0	81·0	82·9	81·1	75·6	77·9	96·1	92·4	93·8	77·2	71·4	75·3	87·1	81·6	84·8	99·6	88·4	95·9
17	85·0	78·7	82·1	81·8	78·6	80·1	92·4	86·0	89·0	71·4	54·2	62·2	89·2	75·2	85·8	05·0	99·6	02·5
18	81·4	78·1	80·0	80·0	78·8	79·3	93·8	89·2	92·4	65·3	*51·8*	*57·0*	89·2	73·4	85·2	09·7	05·0	07·3
19	78·1	74·0	76·0	81·9	79·2	80·2	90·9	86·4	88·4	82·0	65·3	76·4	87·2	77·2	81·3	*12·5*	09·7	*11·2*
20	80·3	74·8	78·7	84·5	81·8	82·8	94·7	89·9	91·6	84·4	80·4	82·7	88·8	80·0	84·5	11·0	07·8	08·9
21	79·5	*60·9*	*69·9*	84·3	68·0	76·1	97·6	94·0	96·1	88·1	82·6	85·8	99·6	88·8	93·7	10·1	07·2	09·0
22	90·0	79·5	84·4	75·9	72·9	74·4	94·0	89·9	91·3	87·6	78·1	82·8	03·7	99·6	02·2	07·2	01·9	04·2
23	91·1	89·7	90·3	75·1	71·1	73·4	92·2	86·6	89·3	90·4	79·6	86·8	*03·8*	01·8	*02·4*	01·9	98·2	99·6
24	89·8	87·5	88·5	82·9	74·5	79·7	86·6	84·1	85·0	79·7	67·4	74·8	02·0	00·8	01·4	99·0	97·3	98·1
25	91·2	86·2	88·1	74·9	68·0	70·9	85·0	83·0	84·2	79·0	67·3	72·1	01·8	97·2	98·8	02·5	98·6	00·6
26	96·2	90·4	92·9	93·4	74·9	85·0	83·9	69·2	76·8	90·0	79·0	85·2	97·2	93·9	95·6	02·4	93·4	99·5
27	96·7	94·0	95·3	*96·3*	93·4	*95·3*	71·7	66·1	69·2	93·3	90·0	91·4	94·1	92·0	93·3	93·4	88·3	89·9
28	94·0	89·9	92·0	95·9	93·5	95·0	74·9	69·7	71·5	98·0	93·3	95·9	00·9	93·9	97·6	90·0	67·2	78·3
29	91·0	89·2	90·3	94·9	91·9	93·4	95·0	74·9	85·8	97·7	89·3	94·1	00·9	98·5	99·7	78·6	70·8	76·2
30	90·7	89·0	89·9	94·7	89·0	92·0	*02·2*	95·0	*99·3*	92·4	87·9	89·5	99·0	96·1	97·8	77·0	56·2	62·5
31	90·0	88·4	89·1	89·0	75·0	81·3				92·6	84·3	89·2				56·8	*41·3*	*52·5*
Mean	88·64	83·45	86·01	84·48	78·24	81·40	87·38	79·64	83·47	88·28	80·85	84·61	92·08	85·24	88·93	88·23	78·49	83·57
									Annual	87·59	80·13	83·91						

PRESSURE AT STATION LEVEL

Monthly and annual means of hourly values in millibars at exact hours, G.M.T.

72 ESKDALEMUIR: h_b = 237·3 m.

	Hour G.M.T. 0	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean
	millibars																									
Jan.	64·93	64·72	64·74	64·79	64·83	64·85	64·97	65·18	65·42	65·65	*65·66*	65·57	65·25	64·81	64·41	64·20	64·10	*64·08*	64·39	64·49	64·65	64·75	64·77	64·77	64·76	64·83
Feb.	89·32	89·25	89·15	89·01	*88·81*	88·84	88·82	89·01	89·28	89·56	89·77	89·82	89·95	89·84	89·67	89·71	89·77	89·99	90·20	90·35	*90·53*	90·49	90·53	90·47	90·57	89·70
Mar.	*95·21*	95·04	94·89	94·59	94·35	94·33	94·34	94·45	94·60	94·61	94·58	94·40	94·09	93·94	93·72	93·50	93·23	93·13	93·28	93·37	93·49	93·39	93·28	93·10	*92·95*	93·99
Apr.	81·05	80·84	80·65	80·54	*80·43*	80·48	80·70	80·90	81·09	81·15	81·22	81·13	81·11	81·04	81·05	81·11	81·12	81·19	81·38	81·66	82·01	82·11	82·18	82·24	*82·25*	81·21
May	87·57	87·48	87·36	87·07	87·14	87·20	87·33	87·49	87·47	87·52	87·44	87·37	87·20	87·10	87·02	86·89	86·85	*86·85*	86·92	87·13	87·37	87·57	*87·67*	87·61	87·53	87·27
June	82·23	82·18	82·03	*81·84*	81·89	81·96	82·16	82·36	82·50	82·57	82·53	82·44	82·40	82·29	82·18	82·20	82·11	82·00	82·01	82·12	82·29	82·69	82·84	*82·96*	82·86	82·30
July	86·53	86·34	86·06	85·72	85·65	85·62	*85·62*	85·82	85·88	85·90	85·83	85·78	85·72	85·73	85·81	85·86	85·84	85·88	86·00	86·22	86·46	86·63	*86·73*	86·64	86·45	86·01
Aug.	*81·71*	81·63	81·49	81·32	81·17	81·20	81·32	81·41	81·46	81·56	81·61	81·62	81·58	81·53	81·48	81·41	81·23	81·13	*81·10*	81·21	81·35	81·46	81·47	81·39	81·25	81·40
Sept.	83·36	83·16	83·03	82·82	*82·70*	82·73	82·79	83·01	83·17	83·27	83·41	83·47	83·50	83·57	83·57	83·38	83·35	83·46	83·64	84·02	84·32	*84·37*	84·33	84·30	84·26	83·47
Oct.	*85·03*	84·85	84·65	84·37	84·27	*84·20*	84·21	84·42	84·67	84·81	84·86	84·83	84·78	84·65	84·51	84·45	84·45	84·49	84·72	84·80	84·78	84·78	84·78	84·67	84·59	84·47	84·61
Nov.	88·65	88·40	88·30	88·22	*88·17*	88·25	88·35	88·55	88·86	89·07	89·24	89·31	89·27	89·08	88·94	88·98	89·10	89·26	89·41	89·39	*89·45*	89·38	89·30	89·15	89·04	88·93
Dec.	*84·72*	84·43	84·20	83·87	83·62	83·42	83·37	83·40	83·64	83·98	84·30	84·32	83·97	83·61	83·33	83·12	83·09	83·13	83·21	83·19	83·21	83·23	83·18	83·08	*82·95*	83·57
Annual	84·17	84·00	83·86	83·66	*83·56*	83·56	83·64	83·81	83·98	84·11	84·17	84·14	84·04	83·90	83·77	83·70	83·65	83·68	83·82	83·96	84·12	84·20	*84·21*	84·15	84·07	83·91

The initial 9 or 10 of the value is omitted, i.e. 1001·42 is printed 01·42.

PRESSURE REDUCED TO MEAN SEA LEVEL

Monthly and annual means of hourly values in millibars at exact hours, G.M.T.

73 ESKDALEMUIR: h_b = 237·3 m.

	Hour G.M.T. 0	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean
	millibars																									
Jan.	93·67	93·48	93·49	93·57	93·59	93·59	93·72	93·95	94·22	*94·43*	94·42	94·22	93·90	93·48	92·92	92·79	92·72	*92·71*	93·05	93·18	93·35	93·46	93·48	93·49	93·49	93·53
Feb.	18·82	18·76	18·66	18·52	*18·31*	18·35	18·32	18·53	18·76	18·99	19·12	19·11	19·17	19·00	18·81	18·89	19·01	19·31	19·63	19·79	19·99	19·96	20·04	19·99	*20·11*	19·10
Mar.	*24·67*	24·48	24·35	24·04	23·77	23·79	23·83	23·91	23·93	23·77	23·58	23·28	22·87	22·68	22·43	22·20	21·99	*21·98*	22·30	22·54	22·74	22·65	22·61	22·45	22·33	23·15
Apr.	10·05	09·85	09·67	09·56	09·44	09·47	09·69	09·77	09·86	09·79	09·78	09·62	09·55	09·40	*09·40*	09·46	09·55	09·67	09·95	10·39	10·87	11·04	11·15	11·27	*11·32*	09·95
May	*16·64*	16·58	16·51	16·24	16·33	16·35	16·33	16·25	16·05	15·97	15·82	15·66	15·43	15·27	15·17	15·03	*15·01*	15·09	15·26	15·60	16·03	16·38	16·58	16·60	16·57	15·92
June	10·72	10·69	10·57	10·38	10·43	10·47	10·59	10·69	10·74	10·75	10·65	10·51	10·41	10·26	10·18	10·21	10·12	*10·01*	10·08	10·29	10·56	11·08	11·28	*11·44*	11·35	10·56
July	14·94	14·76	14·49	14·15	14·09	14·03	13·93	14·02	13·99	13·91	13·79	13·68	13·57	*13·53*	13·60	13·64	13·66	13·73	13·91	14·22	14·60	14·87	*15·03*	14·99	14·83	14·13
Aug.	*10·03*	09·97	09·83	09·66	09·52	09·55	09·63	09·63	09·58	09·58	09·59	09·56	09·49	09·43	09·40	09·34	09·16	*09·09*	09·10	09·27	09·47	09·65	09·72	09·68	09·58	09·54
Sept.	11·80	11·61	11·45	11·25	*11·13*	11·17	11·23	11·40	11·50	11·52	11·65	11·65	11·65	11·69	11·67	11·46	11·44	11·62	11·88	12·34	12·69	*12·78*	12·75	12·75	12·72	11·77
Oct.	*13·87*	13·69	13·51	13·20	13·11	13·02	13·03	13·23	13·44	13·50	13·44	13·35	13·24	13·11	12·95	*12·91*	12·97	13·09	13·43	13·57	13·59	13·61	13·52	13·45	13·31	13·31
Nov.	17·80	17·53	17·43	17·34	*17·31*	17·40	17·49	17·69	18·02	18·18	18·27	18·26	18·14	17·90	17·76	17·86	18·07	18·29	18·49	18·51	*18·59*	18·55	18·49	18·35	18·24	18·00
Dec.	*13·94*	13·62	13·37	13·03	12·76	12·57	12·53	12·54	12·80	13·16	13·45	13·39	12·98	12·58	12·28	12·12	12·15	12·22	12·32	12·32	12·34	12·37	12·32	12·24	*12·09*	12·69
Annual	*13·05*	12·89	12·75	12·55	12·45	12·45	12·49	12·60	12·71	12·76	12·76	12·66	12·49	12·32	12·18	12·12	*12·11*	12·19	12·40	12·62	12·86	12·99	13·04	13·01	12·95	12·60

The initial 9 or 10 of the value is omitted, i.e. 1001·42 is printed 01·42.

The monthly and annual values of pressure reduced to mean sea level are computed from the corresponding monthly and annual means of pressure at station level and of temperature. See General Introduction to the Meteorological Tables, 1938.

TEMPERATURE

Monthly and annual means of readings in degrees Absolute at exact hours, G.M.T.

74 ESKDALEMUIR: Louvered hut: h_t = 0·9 m.

	Hour G.M.T. 0	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean
	millibars																									
Jan.	74·81	74·67	74·81	74·83	74·76	74·78	74·76	74·68	*74·48*	74·61	74·88	75·35	75·78	76·07	*76·80*	75·99	75·74	75·66	75·45	75·24	75·07	75·08	75·13	75·00	74·92	75·19
Feb.	74·68	74·55	74·52	74·47	74·50	74·44	*74·43*	74·43	74·72	75·27	76·02	76·71	77·38	77·84	*77·97*	77·66	77·13	76·45	75·92	75·50	75·29	75·15	74·83	74·71	74·57	75·61
Mar.	76·55	76·60	76·40	76·50	76·65	76·31	*76·03*	76·32	77·49	79·05	80·61	81·70	82·58	82·93	83·09	*83·11*	82·50	81·60	80·01	78·64	77·96	77·81	77·16	76·95	76·65	78·94
Apr.	76·86	76·71	76·65	*76·55*	76·65	76·78	76·94	78·02	79·01	80·24	81·00	81·64	82·21	82·87	*83·03*	82·99	82·25	81·72	80·90	79·60	78·41	77·86	77·49	76·95	76·60	79·30
May	77·94	77·65	77·19	76·90	*76·75*	77·09	78·60	80·83	82·62	83·86	84·50	85·33	85·89	86·46	86·64	*86·68*	86·51	85·56	84·72	83·50	81·75	80·40	79·47	78·78	78·19	81·91
June	81·83	81·53	81·34	81·25	*81·22*	81·55	82·35	83·36	84·32	84·93	85·50	85·93	86·46	*86·80*	86·58	86·43	86·40	86·36	85·77	84·84	83·89	82·88	82·46	82·11	81·99	84·01
July	83·70	83·53	83·40	83·23	*83·14*	83·39	84·34	85·52	86·40	87·40	87·83	88·53	88·93	89·40	89·45	*89·65*	89·26	88·93	88·33	87·54	86·24	85·34	84·75	84·22	83·92	86·36
Aug.	83·18	82·97	82·92	82·85	*82·77*	82·80	83·17	83·97	84·94	85·95	86·37	86·80	87·05	*87·07*	86·97	86·85	86·72	86·41	86·01	85·43	84·90	84·33	83·75	83·37	83·02	84·89
Sept.	82·53	82·47	82·62	82·53	82·49	*82·40*	82·44	82·85	83·52	84·29	84·40	84·99	85·38	85·61	85·87	*86·07*	85·93	85·28	84·49	83·81	83·52	83·13	82·99	82·70	82·56	83·85
Oct.	79·33	79·23	*79·11*	79·19	79·17	79·27	79·31	79·40	79·85	80·74	81·68	82·34	82·90	82·90	*82·97*	82·73	82·24	81·38	80·47	79·88	79·50	79·33	79·13	79·12	79·19	80·46
Nov.	77·50	77·58	77·56	77·62	77·49	77·38	77·53	77·53	77·54	78·05	78·77	79·54	80·29	*80·69*	80·65	80·10	79·22	78·72	78·38	78·06	77·81	77·49	77·29	77·18	*77·14*	78·32
Dec.	*75·93*	76·07	76·17	76·24	76·25	76·16	76·11	76·19	76·07	76·00	76·42	77·03	77·56	77·84	*77·92*	77·39	76·84	76·56	76·42	76·24	76·26	76·17	76·11	75·96	76·05	76·50
Annual	78·75	78·64	78·57	78·52	*78·50*	78·54	78·85	79·44	80·10	80·89	81·52	82·18	82·72	83·06	*83·13*	82·99	82·58	82·07	81·43	80·71	80·07	79·60	79·23	78·93	78·75	80·46

The initial 2 or 3 of the readings is omitted, i.e. 275·00 degrees Absolute is printed 75·00.

Add 0·16° to obtain temperature in degrees Kelvin where $T(°K.) = t(°C.) + 273·16$.

Maximum, minimum and daily mean values in degrees Absolute for each day 0h. to 24h., G.M.T.
The initial 2 or 3 of the values is omitted, i.e. 275·0° is printed 75·0°. Add 0·16° to obtain temperature in degrees Kelvin where $T(°K.) = t(°C.) + 273·16$

75 ESKDALEMUIR: Louvered hut: h_t (height of thermometer bulb above ground) = 0·9 m.

	JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE		
	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean
									degrees Absolute									
1	83·0	74·5	78·5	81·5	76·8	79·1	84·6	73·6	77·5	79·9	76·5	78·1	83·8	*68·0*	*76·1*	86·0	77·2	*81·3*
2	*83·1*	79·9	*81·6*	82·0	77·4	*80·2*	84·9	72·6	78·1	79·7	73·5	76·7	82·4	71·0	76·6	83·3	80·5	81·6
3	80·7	77·6	79·8	77·9	75·5	76·7	81·7	75·1	78·5	79·9	73·7	76·3	82·8	69·0	76·3	85·9	80·0	82·2
4	77·8	74·6	76·6	79·9	75·7	77·6	83·4	72·6	77·0	80·3	70·7	74·9	82·4	77·2	79·7	88·2	81·3	83·7
5	76·6	73·5	75·2	79·3	75·5	77·3	86·6	68·9	76·5	84·0	70·4	77·0	82·4	78·5	80·7	85·6	79·6	82·1
6	75·3	73·0	74·1	77·9	72·0	74·4	85·5	68·8	76·2	82·6	74·3	77·8	85·9	78·8	82·3	83·8	80·2	81·5
7	74·9	73·6	74·2	81·7	72·7	76·7	82·2	70·0	79·0	81·1	75·7	78·8	85·8	78·9	82·5	86·7	81·1	83·0
8	75·5	72·6	74·0	81·7	74·7	78·2	82·2	79·5	80·8	80·3	75·7	78·4	92·4	79·6	85·1	87·1	79·6	82·7
9	74·6	70·2	72·9	80·9	76·3	78·9	85·8	79·2	81·4	84·9	72·5	79·3	90·7	79·6	84·4	90·9	77·7	84·8
10	74·8	73·3	74·2	*82·6*	75·0	79·3	84·6	78·6	81·0	82·3	71·8	77·8	92·6	80·6	85·3	84·6	80·6	82·1
11	78·1	73·7	76·4	79·7	74·3	77·2	86·1	72·7	80·6	85·8	*69·4*	77·9	91·3	80·2	83·9	93·4	80·6	86·2
12	78·6	74·9	77·1	78·7	70·9	75·1	85·4	71·3	79·2	84·7	74·3	80·6	87·4	76·3	82·2	94·6	79·5	87·1
13	80·8	75·1	77·8	77·3	72·7	75·7	83·9	77·0	79·8	85·2	77·3	81·3	86·4	76·2	81·8	*96·8*	80·8	*89·9*
14	77·3	73·4	75·7	80·9	76·4	79·3	88·3	72·7	80·3	84·4	72·4	79·3	90·0	76·6	83·7	93·4	84·8	88·6
15	74·6	71·2	73·4	81·9	76·7	79·0	82·9	78·1	79·9	86·7	70·8	79·8	95·5	74·7	86·0	90·0	82·8	85·8
16	73·4	*67·2*	*70·2*	76·7	74·2	75·7	79·8	74·0	76·6	88·8	74·8	81·5	92·9	77·5	85·7	87·1	81·4	84·1
17	77·9	70·4	74·3	76·2	69·9	73·7	79·0	73·9	*75·9*	87·5	73·1	79·7	95·4	77·5	86·5	87·8	81·3	83·4
18	74·9	72·4	73·6	75·7	69·3	71·9	81·4	70·3	76·8	81·0	79·0	80·2	*96·9*	79·9	*88·7*	87·7	78·7	83·0
19	74·0	71·7	72·9	74·0	72·5	73·0	84·9	78·3	81·3	86·2	80·5	82·0	95·4	76·6	87·2	89·1	77·8	83·2
20	76·7	73·1	74·9	74·4	69·5	72·9	82·7	80·5	81·2	85·1	79·9	81·4	89·4	77·4	83·4	86·9	*76·6*	82·7
21	74·7	71·5	73·8	75·1	69·2	*71·4*	81·0	75·4	78·3	*91·0*	78·0	*83·1*	95·0	71·2	85·2	86·3	78·7	82·4
22	74·0	68·3	71·7	76·1	71·3	73·0	81·6	75·8	78·4	89·4	76·0	81·8	82·3	75·2	79·1	87·2	80·6	83·7
23	72·8	68·0	70·5	77·5	73·0	75·0	82·7	74·0	78·2	87·0	75·1	80·7	81·9	72·2	77·4	89·8	80·4	85·0
24	74·6	70·4	72·8	78·4	72·4	74·5	83·6	69·2	77·7	87·0	77·1	81·8	82·6	70·9	77·0	89·6	78·8	85·1
25	75·6	73·6	74·5	78·1	71·2	73·9	89·8	*68·4*	78·8	87·7	74·8	82·1	84·5	69·8	77·7	88·3	83·2	85·8
26	76·4	75·4	75·8	78·0	68·5	73·0	*91·2*	71·9	*81·9*	89·5	72·1	80·8	87·0	72·7	80·1	89·3	82·0	86·2
27	77·0	72·9	75·8	77·9	70·6	73·5	88·1	74·7	81·2	87·2	81·0	83·0	86·4	73·9	80·7	86·5	79·4	82·9
28	77·7	74·9	76·3	79·9	*66·7*	72·5	86·1	72·0	78·6	81·1	72·7	77·7	86·2	71·2	79·7	87·5	80·8	83·4
29	78·9	75·0	76·4	81·2	67·7	73·8	86·6	74·5	79·5	76·7	72·5	*74·5*	84·4	75·2	80·4	85·7	79·0	82·6
30	79·9	72·7	76·6				81·6	76·2	79·2	78·7	69·9	74·9	87·5	74·5	81·5	87·8	79·0	83·8
31	79·7	76·9	78·3				79·6	75·6	77·7				87·5	79·1	82·1			
Mean	76·9	73·1	75·2	78·7	72·7	75·6	84·1	74·0	78·9	84·2	74·5	79·3	88·0	75·5	81·9	88·2	80·1	84·0

	JULY			AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER		
	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean
									degrees Absolute									
1	89·7	81·2	85·0	*90·8*	87·1	*89·1*	88·1	79·7	84·2	86·9	84·8	85·7	82·6	80·2	81·6	78·8	68·3	72·6
2	86·4	81·5	84·0	89·6	83·8	86·7	87·9	79·9	84·7	*89·3*	83·4	*86·6*	85·0	82·0	83·6	*85·3*	75·8	82·1
3	86·1	82·6	84·7	88·4	82·4	84·5	90·2	83·5	85·5	85·9	77·3	82·3	84·2	81·7	82·8	84·1	76·6	*82·4*
4	88·0	79·4	84·6	89·5	81·8	85·8	90·0	83·9	85·6	85·4	74·9	79·7	82·8	77·5	79·8	80·0	71·4	76·6
5	89·3	78·6	84·1	90·1	83·9	86·5	84·5	77·5	83·2	85·8	74·9	78·8	80·2	75·4	77·4	79·1	72·1	77·2
6	88·9	77·6	84·2	87·4	84·6	85·7	87·2	76·9	82·0	83·9	72·6	78·4	79·9	70·8	74·7	80·5	77·6	78·9
7	90·3	82·4	85·4	87·5	83·7	85·7	87·6	80·6	85·1	85·0	70·8	77·6	79·6	71·4	74·4	82·4	75·6	79·4
8	88·4	79·2	83·9	86·7	84·2	85·2	88·3	83·3	85·5	85·8	75·6	80·9	78·9	68·6	73·7	80·8	74·8	78·5
9	88·4	78·3	83·6	86·7	83·7	85·0	*90·6*	82·7	86·5	89·2	81·8	84·4	81·3	68·8	78·5	82·3	74·8	78·5
10	87·8	81·6	84·2	87·6	79·9	84·4	88·6	84·8	86·2	87·0	83·9	85·1	82·2	77·0	80·1	80·9	77·5	79·3
11	88·1	82·1	84·6	89·3	77·3	83·7	87·3	81·0	84·3	87·0	82·4	85·4	81·6	75·1	78·9	82·4	79·0	80·9
12	88·5	82·2	83·8	84·3	80·4	82·7	84·1	78·1	81·5	85·6	79·6	82·9	84·3	80·2	82·4	81·8	74·9	79·0
13	87·4	81·7	84·2	89·7	82·6	85·7	86·4	76·9	82·1	85·4	82·4	84·1	84·8	83·3	83·9	82·2	75·5	79·9
14	90·0	80·3	85·3	90·4	82·5	85·5	87·9	82·2	84·5	84·2	77·7	81·9	*86·3*	82·7	*84·2*	82·6	77·8	81·2
15	87·1	78·0	83·5	88·7	83·6	86·0	87·6	79·7	83·8	82·9	73·6	80·3	85·0	80·6	83·2	77·9	75·0	76·2
16	90·6	79·1	85·5	89·4	82·0	85·4	85·3	79·6	83·5	83·5	70·9	76·5	81·5	79·2	80·4	80·3	74·4	77·5
17	88·7	81·0	85·1	86·1	77·8	82·7	87·7	82·7	84·1	83·2	75·6	79·4	81·3	77·2	79·5	81·8	78·7	79·8
18	91·6	82·8	86·7	87·5	77·1	83·1	88·4	82·3	84·9	81·0	73·9	77·5	84·9	77·6	81·0	79·8	77·9	79·2
19	90·1	85·1	86·6	86·9	76·0	82·5	87·3	80·2	84·9	83·1	76·7	79·5	85·1	78·8	81·7	77·9	67·6	72·6
20	90·0	83·3	85·9	87·4	*74·0*	*81·4*	85·3	74·8	81·0	83·4	80·[illegible]	82·4	80·7	78·1	79·6	77·9	65·8	71·6
21	88·2	83·2	85·7	87·1	77·8	83·7	82·4	*73·2*	77·6	85·8	83·4	84·4	81·3	70·6	76·7	77·7	72·3	75·3
22	87·2	77·4	83·5	87·7	77·3	83·6	82·9	73·5	*77·3*	85·7	79·0	82·7	78·3	67·8	71·9	75·6	71·3	72·8
23	88·1	*75·8*	*82·6*	86·6	82·6	84·2	82·4	73·6	78·9	85·4	78·9	80·8	73·6	67·0	70·7	74·7	69·8	71·7
24	91·0	75·9	85·1	88·9	81·0	84·5	86·6	81·2	84·1	86·3	81·2	84·9	75·2	*66·1*	*69·6*	77·7	72·2	75·5
25	91·2	86·4	88·8	89·0	81·4	85·6	88·0	83·2	84·9	81·2	70·7	77·1	78·1	66·8	71·9	76·2	66·9	73·1
26	90·4	87·7	89·3	88·9	77·6	84·6	87·3	82·7	85·6	78·3	68·5	72·8	81·3	68·0	73·4	73·7	*65·0*	*69·2*
27	97·5	87·6	91·8	90·4	76·0	83·6	89·1	85·9	*87·4*	78·4	*67·8*	*72·6*	82·2	74·8	77·5	73·4	68·2	72·0
28	00·2	88·0	94·4	90·2	79·3	84·9	87·1	85·0	86·1	79·7	70·2	74·9	81·6	72·9	78·8	80·4	72·1	75·4
29	*01·9*	88·2	*94·9*	89·2	84·8	86·7	87·7	82·9	84·6	80·2	75·9	77·5	82·5	75·2	80·0	76·4	74·1	75·3
30	00·2	86·5	93·5	88·0	85·5	86·6	89·9	83·2	85·9	78·2	76·6	77·5	80·8	69·7	77·8	77·8	72·0	74·7
31	99·9	86·7	92·8	87·5	84·0	86·3				82·4	77·0	79·5				73·7	72·3	73·2
Mean	90·7	82·0	86·4	88·3	81·2	84·9	87·1	80·5	83·8	84·0	76·8	80·5	81·6	74·8	78·3	79·2	73·1	76·5
									Annual	84·3	76·8	80·5						

MEAN RELATIVE HUMIDITY AND VAPOUR PRESSURE FOR EACH DAY

Mean percentages from readings at exact hours 0h. to 24h., G.M.T.; vapour pressure from daily mean temperature and relative humidity

76 ESKDALEMUIR: Louvered hut: h_t = 0·9 m.

	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.
	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.
1	*94·3*	8·5	92·7	8·7	84·6	7·1	87·0	7·6	71·5	*5·4*	85·9	9·4	69·9	9·8	95·5	*17·5*	91·1	12·2	98·1	*14·4*	99·1	11·1	81·6	4·8
2	*94·3*	*10·5*	91·3	*9·3*	82·0	7·2	76·4	6·1	75·1	5·9	93·6	10·5	74·8	9·8	86·7	13·6	*98·3*	13·5	90·8	14·1	97·7	12·5	92·6	10·7
3	89·5	8·8	84·1	6·7	94·3	8·5	79·8	6·2	74·6	5·8	83·5	9·7	94·1	12·9	82·2	11·2	91·5	13·3	78·9	9·3	91·7	11·1	*97·5*	*11·5*
4	91·8	7·3	78·6	6·7	88·8	7·2	82·9	5·8	89·0	8·7	79·7	10·3	84·8	11·6	79·0	11·7	85·3	12·4	87·4	8·6	86·8	8·6	82·6	6·5
5	80·7	5·8	89·0	7·4	69·9	*5·5*	69·5	*5·7*	89·0	9·4	81·0	9·4	67·8	9·0	89·6	13·9	92·3	11·5	88·3	8·1	*75·6*	6·3	82·8	6·8
6	91·7	6·1	86·2	5·8	71·7	5·5	80·8	7·0	76·7	9·0	91·5	10·1	78·0	10·4	0·96	14·1	87·7	10·1	92·0	8·3	83·9	5·8	91·7	8·5
7	92·5	6·2	84·1	6·7	94·6	8·8	92·1	8·5	92·0	10·9	83·9	10·3	72·7	10·5	95·5	14·0	97·3	13·7	84·3	7·2	88·4	6·0	89·0	8·6
8	88·9	5·8	93·1	8·2	*95·7*	*10·1*	79·4	7·1	78·5	11·1	92·8	11·2	63·7	*8·3*	93·4	13·3	84·4	12·2	82·1	8·7	85·7	5·5	91·8	8·3
9	92·4	5·6	76·5	7·1	84·7	9·3	*67·9*	6·5	74·9	10·1	75·9	10·5	69·7	8·9	92·6	13·0	89·0	13·8	85·0	11·5	84·9	7·7	92·5	8·4
10	91·4	6·1	88·9	8·5	72·7	7·8	74·7	6·4	81·5	*11·7*	90·1	10·4	82·7	11·0	82·3	11·1	92·6	14·1	88·7	12·5	90·2	9·1	94·5	9·0
11	93·3	7·3	92·8	7·7	75·3	7·9	74·7	6·5	87·5	11·4	71·7	10·9	82·0	11·2	81·2	10·5	82·0	11·0	*98·8*	14·2	91·8	8·5	91·2	9·7
12	89·7	7·3	80·5	5·7	85·3	8·1	87·3	9·1	78·7	9·2	68·5	11·0	84·6	11·0	90·3	10·9	86·4	9·6	91·1	11·1	97·7	11·5	95·0	8·9
13	87·6	7·5	87·4	6·5	81·6	8·1	80·5	8·8	90·3	10·2	*65·9*	12·7	88·5	11·8	82·7	12·2	88·9	10·3	92·7	12·3	*99·6*	*13·0*	96·7	9·6
14	90·1	6·7	*93·5*	8·9	80·1	8·2	70·4	6·7	75·4	9·7	75·2	13·3	86·5	12·4	79·4	11·5	84·0	11·4	85·3	9·4	96·3	12·8	95·7	10·4
15	82·5	5·2	84·6	7·9	87·8	8·7	77·5	7·6	68·3	10·2	86·3	12·8	92·2	11·7	93·7	14·0	86·3	11·2	88·0	9·0	96·7	12·0	84·0	6·5
16	*78·5*	*3·9*	77·3	5·7	78·4	6·2	71·8	8·0	69·0	10·1	84·3	11·1	79·7	11·6	88·8	12·8	81·2	10·3	82·5	6·5	93·6	9·6	89·4	7·5
17	89·2	6·0	79·0	5·1	88·4	6·7	81·5	8·0	69·2	10·7	83·7	10·6	81·8	11·6	85·0	10·2	83·2	11·0	91·0	8·7	89·9	8·7	97·3	9·6
18	85·2	5·4	*70·8*	*4·0*	77·8	6·2	97·8	9·9	54·0	9·6	90·0	11·1	82·6	13·0	81·6	10·1	79·8	11·1	84·4	7·1	90·4	9·7	97·3	9·2
19	80·4	4·9	74·5	4·5	88·7	9·7	90·4	10·4	*49·0*	7·9	78·1	9·7	87·0	13·6	*75·5*	*8·9*	83·8	11·7	*75·2*	7·3	91·7	10·3	87·6	5·2
20	82·5	5·8	84·3	5·1	89·5	9·7	82·6	9·1	73·6	9·3	75·3	*9·1*	81·6	12·1	84·0	9·3	70·2	7·5	87·1	10·3	82·1	8·0	92·9	5·1
21	85·0	5·5	74·1	*4·0*	81·6	7·3	85·2	10·5	54·8	7·8	84·6	10·0	87·4	12·8	96·3	12·4	*65·2*	*5·5*	87·0	11·7	88·8	7·1	92·5	6·7
22	87·9	4·9	75·6	4·6	78·7	7·1	*94·3*	*10·7*	*92·5*	8·7	85·3	11·0	87·3	11·1	92·3	11·8	81·9	6·8	79·1	9·5	92·3	5·2	93·9	5·7
23	84·4	4·3	85·5	6·0	78·4	6·8	76·8	8·1	71·9	6·1	74·7	10·5	82·3	9·8	91·2	12·1	89·1	8·3	85·7	9·1	96·7	5·0	90·1	5·0
24	81·7	4·9	87·6	6·0	82·9	7·1	73·0	8·3	71·7	5·8	80·0	11·3	80·4	11·3	87·9	11·9	94·5	12·5	93·3	13·0	91·2	*4·3*	85·4	6·3
25	88·2	6·0	79·9	5·2	66·5	6·1	71·5	8·3	72·7	6·2	*96·7*	*14·3*	91·9	16·5	91·0	13·3	91·3	12·7	77·9	6·4	84·3	4·7	86·3	5·3
26	83·4	6·2	73·7	4·5	*57·7*	6·6	80·6	8·5	69·2	7·0	92·7	14·1	*97·2*	18·0	93·4	12·8	95·0	13·9	77·3	*4·7*	83·3	5·2	80·6	3·7
27	86·1	6·4	82·1	5·2	58·9	5·5	80·6	9·9	64·9	6·8	86·0	10·5	*76·5*	16·6	87·8	11·2	93·3	*15·3*	90·7	5·4	87·0	7·3	*62·3*	*3·5*
28	88·7	6·9	79·3	4·7	69·3	6·3	86·6	7·4	72·7	7·2	82·2	10·4	*59·5*	15·2	90·8	12·6	91·3	13·8	86·7	6·1	95·3	8·8	94·1	6·8
29	93·3	7·3	85·1	5·5	79·3	7·7	89·3	6·1	82·7	8·5	84·9	10·2	73·0	19·2	*98·7*	15·5	81·4	11·1	90·1	7·6	97·2	9·7	84·5	6·1
30	90·1	7·1			84·5	8·0	82·7	5·8	79·9	8·9	82·0	10·6	78·4	19·0	96·7	15·1	84·2	12·5	91·3	7·7	97·9	8·4	86·7	6·0
31	89·3	8·0			91·9	7·9			85·4	9·9			83·6	*19·3*	97·7	14·9			95·9	9·3			90·3	5·6
Mean*	87·9	6·4	83·2	6·3	80·7	7·5	80·9	7·8	75·4	8·7	82·9	10·9	80·7	12·6	89·0	12·5	86·7	11·5	87·3	9·3	90·9	8·5	89·4	7·3

* Mean of the column.

RELATIVE HUMIDITY

Monthly and annual means of values at exact hours, G.M.T.

77 ESKDALEMUIR: h_t = 0·9 m.

	Hour G.M.T. 0	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean*
	per cent																									
Jan.	88·0	88·2	87·8	88·1	88·4	88·6	88·7	88·6	*90·2*	90·2	88·8	88·5	87·0	87·2	*86·3*	86·6	87·5	86·9	86·8	87·3	87·7	87·3	87·2	87·6	87·9	87·9
Feb.	84·7	85·1	84·7	85·9	86·5	86·9	87·2	87·4	*87·7*	86·3	84·1	81·1	79·3	77·3	*75·2*	76·2	77·8	80·2	82·2	83·8	85·0	84·4	84·8	83·6	84·6	83·2
Mar.	87·6	88·5	89·4	89·1	89·9	88·5	*90·0*	88·8	86·9	83·0	76·2	70·9	67·6	66·1	*65·1*	65·2	68·0	72·3	77·8	82·4	84·8	84·5	87·1	87·1	87·8	80·7
Apr.	88·2	88·3	88·4	*90·2*	89·4	89·3	89·0	87·3	84·8	80·1	74·9	73·3	71·6	68·5	67·7	*66·7*	70·5	73·6	76·6	80·3	83·3	85·1	86·6	86·7	87·8	80·8
May	88·3	89·2	90·2	*90·5*	90·0	89·4	85·5	80·7	74·2	68·0	63·3	62·0	61·5	60·2	*60·2*	60·7	60·9	63·7	67·6	70·5	77·9	81·9	85·1	86·7	88·8	75·4
June	91·5	*92·0*	91·4	91·3	90·5	90·8	87·6	83·8	79·9	78·0	77·5	74·9	*72·0*	73·0	74·1	74·9	75·1	76·0	79·0	81·8	86·0	88·6	89·2	90·3	91·0	82·9
July	87·5	87·7	88·8	90·3	*90·8*	89·5	87·9	84·5	80·8	76·2	73·8	72·2	71·6	70·7	70·5	*70·3*	71·7	74·0	75·5	78·9	83·4	86·1	86·7	87·0	87·8	80·7
Aug.	92·8	93·2	93·2	93·7	*94·1*	93·8	93·8	92·3	90·0	86·8	83·8	*82·3*	83·2	83·8	84·9	85·2	84·5	85·9	87·1	88·5	89·3	90·2	91·8	91·5	92·8	89·0
Sept.	*91·0*	90·9	89·1	90·3	90·2	90·7	90·7	90·5	88·6	85·8	84·8	82·4	80·3	79·4	79·0	*78·1*	78·8	83·5	87·0	89·5	89·6	90·5	90·6	90·6	*91·0*	86·7
Oct.	90·7	91·1	*92·2*	91·6	91·9	91·4	91·2	91·1	89·5	88·2	85·1	81·3	78·3	78·5	*78·3*	79·4	80·7	84·4	87·2	89·7	90·8	91·0	90·7	91·3	90·8	87·3
Nov.	93·1	92·7	92·2	92·2	92·5	93·0	92·3	91·9	92·8	91·9	91·9	89·4	87·2	85·1	*85·0*	87·1	88·6	91·4	90·2	90·8	91·7	*93·4*	93·0	93·0	92·9	90·9
Dec.	89·3	89·7	89·8	89·1	88·7	89·7	89·3	90·3	90·6	90·9	90·3	89·0	87·0	86·5	86·9	88·6	89·7	90·7	89·3	90·7	90·2	90·1	89·3	89·2	89·4	89·4
Annual	89·4	89·7	89·8	90·2	*90·3*	90·1	89·5	88·1	86·3	83·8	81·2	78·9	77·2	76·3	*76·1*	76·6	77·8	80·2	82·2	84·5	86·6	87·7	88·5	88·7	89·4	84·6

VAPOUR PRESSURE

Monthly and annual means of values at exact hours, G.M.T. computed from corresponding mean values of temperature and relative humidity

78 ESKDALEMUIR: h_t = 0·9 m.

	Hour G.M.T. 0	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean*
	millibars																									
Jan.	6·1	*6·1*	6·1	6·1	6·1	6·1	6·2	6·1	6·1	6·2	6·2	6·4	6·5	6·6	*6·9*	6·6	6·5	6·4	6·3	6·3	6·2	6·2	6·2	6·2	6·2	6·3
Feb.	5·9	5·8	*5·8*	5·8	5·9	5·9	5·9	5·9	6·1	6·2	6·4	6·5	6·6	6·7	6·5	6·5	6·4	6·3	6·2	6·1	6·1	6·0	5·9	5·8	5·8	6·1
Mar.	6·9	7·0	7·0	7·0	7·1	6·9	*6·8*	6·9	7·3	7·8	8·0	8·0	8·1	8·1	8·0	8·1	*8·1*	8·1	8·0	7·5	7·4	7·3	7·2	7·1	7·0	7·5
Apr.	7·1	7·0	7·0	7·1	7·1	7·2	7·2	7·6	7·9	8·2	8·0	8·2	*8·3*	8·3	8·3	8·2	8·2	8·3	8·2	7·8	7·3	7·4	7·3	7·0	*6·9*	7·7
May	7·7	7·6	7·4	7·3	7·2	7·3	7·8	8·6	8·9	8·8	8·6	8·9	9·1	9·3	9·4	*9·5*	9·4	9·3	9·3	9·0	8·8	8·4	8·2	8·0	7·9	8·6
June	10·4	10·2	10·0	10·0	*9·9*	10·1	10·3	10·5	10·7	10·9	11·2	11·2	11·1	11·5	11·5	11·5	11·6	11·7	*11·7*	11·3	11·2	10·8	10·6	10·5	10·4	10·9
July	11·3	*11·2*	11·2	11·3	11·3	11·3	11·8	12·3	12·4	12·5	12·5	12·7	13·0	13·2	13·2	13·3	13·3	*13·4*	13·1	13·1	12·7	12·3	12·0	11·6	11·5	12·4
Aug.	11·5	11·4	11·4	*11·4*	11·4	11·4	11·6	12·1	12·5	13·0	12·9	13·0	13·3	13·5	*13·5*	13·5	13·3	13·2	13·1	12·8	12·4	12·1	11·9	11·5	11·4	12·4
Sept.	10·8	10·8	*10·7*	10·8	10·7	10·7	10·7	11·0	11·3	11·5	11·4	11·6	11·6	11·6	11·7	11·7	11·8	*11·9*	11·8	11·6	11·4	11·2	11·1	10·9	10·9	11·3
Oct.	8·7	8·7	8·7	8·7	8·7	8·7	8·7	8·8	8·9	9·3	9·6	9·6	*9·6*	9·6	9·6	9·6	9·4	9·3	9·0	8·9	8·8	8·7	*8·6*	8·6	8·6	9·0
Nov.	7·9	7·9	7·8	7·8	7·8	7·8	7·8	7·8	8·1	8·5	8·7	8·9	*8·9*	8·9	8·9	8·8	8·4	8·4	8·1	7·9	7·9	7·9	7·7	7·7	*7·6*	8·1
Dec.	6·8	6·8	6·9	6·9	6·9	6·9	6·8	6·9	6·9	6·9	7·0	7·3	7·4	7·5	*7·5*	7·4	7·2	7·2	7·0	7·0	6·9	6·9	6·8	*6·7*	6·8	7·0
Annual	8·2	8·2	*8·2*	8·2	8·2	8·2	8·3	8·5	8·7	8·9	9·0	9·2	9·3	9·4	*9·4*	9·4	9·3	9·3	9·1	8·9	8·7	8·6	8·4	8·3	8·2	8·7

* Mean of values, 1,2,.....23, ½(0 + 24).

Amount in millimetres, duration in hours and maximum rate of fall for each day 0h. to 24h., G.M.T.

79 ESKDALEMUIR: h_r(height of receiving surface above M.S.L.) = height of station above M.S.L. + height of surface above ground = 24·1 m. + 0·6 m.

	JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE		
	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate
	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.
1	26·5	15·7	15	16·2	8·5	6	···	···	···	*31·4*	*14·6*	7	···	···	···	0·6	0·8	···
2	12·7	6·9	*58*	13·5	8·7	17	···	···	···	7·2	4·3	3	0·2	0·5	···	11·2	12·4	12
3	3·3	2·4	2	0·8	1·4	···	···	···	···	0·7	0·8	···	1·0	3·0	···	8·0	7·5	7
4	33·3	15·3	8	8·6	3·4	11	···	···	···	0·2	0·7	···	*8·3*	*10·4*	2	14·6	5·4	13
5	6·1	7·7	3	13·1	5·4	8	···	···	···	···	···	···	3·5	5·1	1	0·5	0·5	···
6	1·5	1·9	···	12·4	8·3	5	···	···	···	2·1	2·7	···	···	···	···	*35·6*	*12·8*	34
7	19·1	*21·1*	2	13·4	7·9	3	13·0	*17·0*	7	15·9	9·2	*40*	0·1	···	···	4·1	5·0	1
8	1·9	2·5	1	*17·9*	*13·7*	7	5·2	7·4	1	8·1	2·7	8	···	···	···	15·2	10·6	14
9	6·8	7·1	2	4·8	4·4	1	1·9	2·2	2	···	···	···	···	···	···	···	···	···
10	4·8	4·9	1	15·5	7·1	10	0·1	0·2	···	···	···	···	···	···	···	0·2	1·2	···
11	*36·7*	16·9	6	16·7	5·7	*37*	···	···	···	···	···	···	5·1	3·3	13	···	···	···
12	5·0	4·1	2	1·6	1·0	6	···	···	···	0·2	0·3	···	6·7	1·1	*20*	···	···	···
13	6·2	5·4	5	2·0	4·0	···	···	···	···	···	···	···	4·0	4·5	6	···	···	···
14	9·4	6·2	15	8·1	10·6	6	···	···	···	0·2	0·3	···	···	···	···	···	···	···
15	17·0	12·0	3	···	···	···	2·3	2·2	3	···	···	···	···	···	···	···	···	···
16	···	···	···	0·1	0·3	···	5·9	3·0	*33*	···	···	···	···	···	···	11·0	4·4	34
17	22·1	12·7	31	0·4	1·3	···	1·4	2·6	···	···	···	···	···	···	···	15·5	7·0	38
18	18·8	15·6	3	···	···	···	4·7	2·7	3	19·8	10·0	8	···	···	···	22·1	9·6	16
19	3·9	6·3	···	···	···	···	15·9	9·1	4	0·2	2·0	···	···	···	···	0·3	0·1	1
20	3·1	1·9	2	1·2	1·4	···	2·9	7·2	···	0·4	0·3	···	···	···	···	···	···	···
21	···	···	···	···	···	···	7·8	7·7	8	···	···	···	···	···	···	6·5	5·4	13
22	0·1	0·3	···	0·2	0·2	···	1·1	1·9	4	16·2	4·9	22	4·5	4·4	2	4·1	2·1	19
23	···	···	···	3·8	2·4	8	···	···	···	0·2	0·6	···	···	···	···	···	···	···
24	0·2	0·0	···	···	···	···	···	···	···	0·2	0·2	···	···	···	···	···	···	···
25	···	···	···	···	···	···	···	···	···	···	···	···	0·5	0·4	1	1·5	3·6	···
26	7·8	8·5	2	···	···	···	···	···	···	···	···	···	···	···	···	11·8	4·9	35
27	···	···	···	···	···	···	···	···	···	···	···	···	···	···	···	7·2	6·8	34
28	2·3	1·5	1	···	···	···	···	···	···	17·6	9·7	12	···	···	···	5·9	4·6	*49*
29	2·4	2·1	···	···	···	···	1·2	1·1	2	5·5	14·2	4	···	···	···	0·2	0·9	···
30	5·8	4·3	8				7·7	7·3	25	2·9	3·7	24	4·4	6·0	1	···	···	···
31	10·4	5·3	5				*26·8*	12·8	12				6·6	5·9	12			
Total	267·2	188·6	–	150·3	95·7	–	97·9	84·4	–	129·0	81·2	–	44·9	44·6	–	176·1	105·6	–

	JULY			AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER		
	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate
	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.
1	···	···	···	···	···	···	4·2	2·2	22	8·1	6·5	14	9·0	15·2	4	···	···	···
2	0·5	0·9	···	···	···	···	22·2	8·2	*65*	3·2	7·5	4	6·8	12·6	53	16·4	9·3	32
3	12·1	8·5	7	0·2	0·4	8	6·2	3·3	35	0·5	0·1	22	20·7	10·9	17	8·6	5·5	16
4	*25·8*	8·7	17	···	···	···	0·4	1·3	8	···	···	···	10·0	7·7	12	2·6	1·0	3
5	···	···	···	0·5	1·3	5	1·4	2·8	6	···	···	···	0·8	0·9	2	···	···	···
6	···	···	···	21·4	9·2	45	1·6	0·9	20	···	···	···	1·4	1·6	3	2·9	2·3	4
7	···	···	···	8·3	11·6	7	20·5	*17·0*	53	···	···	···	···	···	···	8·8	6·3	20
8	···	···	···	5·8	7·4	6	0·2	0·2	···	···	···	···	···	···	···	19·1	5·7	18
9	···	···	···	0·5	1·5	···	···	···	···	5·6	7·2	7	···	···	···	18·2	8·1	8
10	···	···	···	···	···	···	6·3	2·2	23	16·6	12·9	12	···	···	···	5·9	6·5	32
11	3·5	6·1	4	···	···	···	1·8	1·1	9	19·0	13·7	68	0·6	0·3	2	19·4	*11·5*	7
12	6·9	2·3	47	38·1	*18·1*	*24*	12·7	6·8	25	0·4	0·2	13	*32·8*	*16·4*	65	10·7	7·8	5
13	1·8	1·8	3	3·8	2·1	22	5·5	7·3	6	*32·5*	9·7	*90*	2·1	8·5	2	11·5	5·6	*44*
14	0·2	0·4	···	0·8	0·3	13	0·6	0·8	2	12·3	2·3	56	5·6	3·2	20	*25·6*	8·8	25
15	···	···	···	19·9	13·4	35	*38·3*	8·6	42	2·2	1·5	22	5·2	7·0	5	2·9	1·0	7
16	···	···	···	12·3	6·6	53	···	···	···	···	···	···	4·9	3·5	3	0·1	0·1	···
17	···	···	···	1·2	0·9	7	1·2	2·9	2	10·0	8·5	24	20·1	5·8	8	···	···	···
18	0·8	0·6	7	0·1	···	···	1·2	1·2	4	0·5	1·4	4	6·8	1·9	17	···	···	···
19	6·4	6·2	11	···	···	···	2·5	4·8	12	0·7	1·0	4	9·8	4·2	*72*	···	···	···
20	1·4	1·2	9	···	···	···	···	···	···	1·2	2·4	6	2·7	1·2	11	0·3	0·2	1
21	20·0	6·1	27	20·3	8·7	24	···	···	···	···	···	···	···	···	···	1·0	0·8	···
22	10·5	2·8	*67*	11·1	1·1	*121*	2·1	2·9	3	5·7	5·5	16	···	···	···	···	···	···
23	···	···	···	8·8	3·7	43	0·3	0·8	5	6·3	8·8	6	···	···	···	···	···	···
24	···	···	···	14·8	5·9	29	1·8	2·9	4	9·7	*13·8*	28	···	···	···	···	···	···
25	3·1	6·2	1	17·4	8·3	28	5·7	6·7	11	0·7	0·8	1	···	···	···	···	···	···
26	8·2	*9·5*	7	···	···	···	32·3	15·8	37	···	···	···	···	···	···	···	···	···
27	···	···	···	···	···	···	7·1	11·0	7	···	···	···	···	···	···	1·9	2·5	1
28	···	···	···	···	···	···	1·3	0·8	26	···	···	···	0·4	0·1	···	18·0	6·9	20
29	···	···	···	7·1	7·8	13	···	···	···	3·1	2·4	9	0·2	···	···	6·8	4·5	7
30	···	···	···	3·6	5·6	7	0·6	0·6	···	1·8	1·7	1	0·1	···	···	8·2	2·1	7
31	0·1	0·5	···	*54·0*	17·3	48				6·4	5·1	8				5·2	4·9	2
Total	101·3	61·8	–	250·0	131·2	–	178·0	113·1	–	146·5	113·0	–	140·0	101·0	–	194·1	101·4	–

RAINFALL

Monthly and annual totals of amounts in sixty-minute periods between exact hours, G.M.T.

80 ESKDALEMUIR: h_r = 242·0 m. + 0·4 m.

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	0-24
	millimetres																								
Jan.	12·7	10·4	13·7	11·0	7·2	10·0	14·7	10·8	12·0	*17·1*	9·3	9·5	14·5	11·0	7·6	7·7	13·0	9·4	10·8	8·7	6·7	15·0	10·5	13·9	267·2
Feb.	7·0	4·5	3·2	8·3	8·4	6·4	*13·2*	11·3	5·1	4·6	4·8	3·4	2·2	1·0	7·3	11·1	9·2	8·2	4·9	4·8	8·8	3·5	4·4	4·7	150·3
Mar.	5·1	8·3	*9·0*	4·6	3·6	4·1	1·7	1·5	2·5	4·7	3·5	3·9	3·5	3·4	4·9	4·9	5·2	3·0	1·8	2·9	2·6	2·7	4·7	5·8	97·9
Apr.	2·2	4·7	10·3	8·3	7·3	9·2	8·3	*11·6*	8·0	10·2	4·7	6·7	6·2	5·1	3·1	4·3	5·8	1·5	1·4	1·7	3·3	3·6	1·3	0·2	129·0
May	1·3	3·4	*5·2*	0·9	0·1	0·5	1·3	1·0	0·5	0·7	1·1	1·6	0·4	0·8	3·5	3·9	3·9	0·7	1·6	2·4	3·0	3·6	1·5	2·0	44·9
June	3·2	4·3	8·2	5·8	4·1	8·6	7·4	4·6	6·4	5·7	5·9	4·6	8·7	10·4	8·8	12·0	13·6	*20·0*	11·9	3·9	7·0	3·7	2·0	5·3	176·1
July	6·3	9·1	*11·9*	9·1	5·3	5·0	4·2	4·1	2·8	2·3	8·5	6·8	5·8	2·5	1·8	1·2	2·0	0·8	0·6	···	0·1	0·8	3·5	6·8	101·3
Aug.	12·5	6·8	15·5	9·6	5·1	6·7	7·1	11·0	5·9	6·1	16·0	12·4	9·3	12·0	*23·2*	17·9	17·9	11·3	6·3	3·0	4·9	5·0	12·2	12·3	250·0
Sept.	1·6	2·4	9·0	*17·4*	12·9	9·3	3·9	8·6	8·3	14·1	5·5	8·2	11·3	8·9	6·8	10·4	8·6	6·5	4·6	9·4	5·3	2·0	1·7	1·3	178·0
Oct.	1·7	2·0	2·4	11·5	6·9	3·6	4·1	3·7	6·5	3·5	2·6	6·3	12·9	8·4	8·2	4·8	12·4	6·1	7·3	*13·4*	9·1	3·4	2·5	3·2	146·5
Nov.	*12·5*	7·7	3·4	3·2	4·7	2·6	4·4	3·6	2·1	2·1	3·6	4·5	7·1	3·6	4·6	6·4	3·9	7·1	7·1	10·4	10·7	7·9	8·6	8·2	140·0
Dec.	7·5	9·4	11·0	7·4	11·0	6·5	12·3	8·7	7·1	2·5	1·8	2·3	3·5	8·0	11·7	*18·4*	15·9	16·6	5·4	3·6	3·7	4·1	5·9	9·8	194·1
Annual	73·6	73·0	102·8	97·1	76·6	72·5	82·6	80·5	67·2	73·6	67·3	70·2	85·4	75·1	91·5	103·0	*111·4*	91·2	63·7	64·2	65·2	*55·3*	58·8	73·5	1875·3

RAINFALL

Monthly and annual totals of durations in sixty-minute periods between exact hours, G.M.T.

81 ESKDALEMUIR: h_r = 242·0 m. + 0·4 m.

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	0-24
	hours																								
Jan.	8·2	8·8	9·5	9·3	7·4	8·4	*9·6*	7·8	9·3	8·2	7·0	7·7	7·0	6·1	6·7	8·8	8·6	7·4	7·2	6·0	6·8	6·9	8·0	7·9	188·6
Feb.	4·4	2·9	2·5	4·8	5·7	5·1	5·9	*6·4*	5·6	5·8	4·9	3·5	3·8	1·6	3·0	5·1	3·6	4·4	2·7	3·3	3·2	1·9	2·2	3·4	95·7
Mar.	3·2	3·7	4·4	*5·4*	5·2	4·4	4·2	2·8	4·5	*5·4*	5·0	4·0	2·9	2·4	2·2	3·4	2·8	2·4	2·2	1·9	1·8	2·6	3·6	4·0	84·4
Apr.	1·6	2·4	3·1	3·7	4·1	3·9	5·7	*7·4*	5·6	5·2	4·1	4·5	4·3	4·0	2·6	3·9	4·3	1·7	1·4	1·8	1·4	1·3	2·0	1·2	81·2
May	2·1	1·9	3·0	3·0	1·0	0·9	1·4	0·7	0·5	0·3	0·6	0·7	0·3	1·3	1·9	3·2	2·7	1·1	2·5	2·6	3·0	*4·0*	2·9	3·0	44·6
June	3·0	3·2	3·9	5·4	*7·1*	5·7	5·0	4·2	3·9	3·9	5·1	4·7	4·6	5·8	5·4	6·9	5·1	5·8	4·3	3·0	3·5	1·6	2·1	2·4	105·6
July	2·7	2·3	*6·5*	5·7	6·4	5·3	6·0	4·3	3·0	1·7	2·5	3·1	2·2	0·9	1·5	0·8	0·7	0·3	0·2	···	0·5	0·8	1·6	2·8	61·8
Aug.	4·4	5·6	6·6	7·7	7·1	7·4	*8·7*	7·8	6·2	5·3	6·0	5·7	4·2	5·4	4·7	6·5	6·2	4·2	3·5	3·0	3·4	3·7	3·7	4·2	131·2
Sept.	3·7	3·4	5·0	6·9	6·0	4·8	5·2	6·4	6·9	7·3	*7·6*	4·9	5·4	6·2	5·3	3·7	4·7	3·4	2·7	3·7	2·9	2·7	2·0	2·3	113·1
Oct.	3·2	3·4	5·2	7·3	*8·5*	5·6	6·4	6·2	5·4	3·1	1·5	2·8	4·4	4·8	4·6	3·2	4·4	5·0	4·8	6·1	5·5	4·0	3·1	4·5	113·0
Nov.	*6·8*	4·4	4·8	2·6	4·9	3·7	5·2	4·6	3·4	2·8	3·7	3·9	4·5	3·1	2·4	4·8	3·1	3·9	3·6	3·7	4·7	5·1	6·1	5·2	101·0
Dec.	3·8	5·4	5·1	3·3	6·0	4·2	6·6	4·6	3·5	2·1	2·4	2·3	3·8	4·4	4·2	7·2	5·0	5·2	3·9	3·5	2·3	3·6	4·4	4·6	101·4
Annual	47·1	47·4	59·6	65·1	69·4	59·4	*69·9*	63·2	57·8	51·1	50·4	47·8	47·4	46·0	44·5	57·5	51·2	44·8	39·0	38·6	39·0	*38·2*	41·7	45·5	1221·6

NOTES ON RAINFALL

82 ESKDALEMUIR:

Dry Periods

The following definitions are adopted by the British Rainfall Organization.
An "absolute drought" is a period of at least 15 consecutive days to none of which is credited 0·2 mm. of rain or more
A "partial drought" is a period of at least 29 consecutive days, the mean daily rainfall of which does not exceed 0·2 mm.
A "dry spell" is a period of at least 15 consecutive days to none of which is credited 1·0 mm. of rain or more

"Absolute drought" No occasions
"Partial drought" No occasions
"Dry spell" No occasions

Wet Periods

The following definitions are adopted by the British Rainfall Organization.
A "rain spell" is a period of at least 15 consecutive days to each of which is credited 0·2 mm. of rain or more
A "wet spell" is a period of at least 15 consecutive days to each of which is credited 1·0 mm. of rain or more

"Rain spell" January 28–February 14
"Wet spell" January 1–15

Rainfall Duration

There were 139 days on which no duration of rainfall was registered. The day with the greatest duration was January 7, when the duration was 21·1 hr., the amount falling being 19·1 mm.

Hours	0·1–1·0	1·1–2·0	2·1–6·0	6·1–12·0	>12·0
Number of days	43	25	70	65	24

Notable Falls of the Year

The greatest amount in a 60-min. period was 10·2 mm. which was recorded between 14h. and 15h. on August 22; on this occasion 5 mm. of rain fell in 8 min. and 10 mm. in 40 min. Falls of 5 mm. in 1 hr. or less occurred on 25 days.

Details of the greatest continuous falls are as follows

	January 10–11	March 31/April 1	August 12–13	August 30–31	September 26–27
Amount (mm.)	36·9	35·4	41·1	52·9	36·1
Duration of rainfall (hr.)	17·9	16·8	16·3	16·8	23·1

Rate of Rainfall (Jardi recorder)

The highest instantaneous rate of rainfall recorded was 121 mm./hr. at 14h.25m. on August 22. The maximum rate exceeded 50 mm./hr. on January 2, July 22, August 16, 22, September 2, 7, October 11, 13, 14, and November 2, 12, 19.

83 ESKDALEMUIR: h_s(height of recorder above ground) = 1·5 m.

	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible	Duration	Per cent. of possible
	hr.	%	hr.	%	hr.	%	hr.	%	hr.	%	hr.	%	hr.	%	hr.	%	hr.	%	hr.	%	hr.	%	hr.	%
1	···	···	···	···	1·0	9	···	···	10·1	66	2·8	17	6·4	37	0·8	5	2·6	19	···	···	···	···	*6·3*	*85*
2	···	···	···	···	5·2	49	4·7	36	5·3	35	···	···	1·5	9	1·9	12	···	···	2·7	24	···	···	···	···
3	···	···	0·4	5	···	···	7·1	54	4·3	28	4·3	25	···	···	1·5	10	3·2	23	6·0	53	0·8	9	···	···
4	···	···	4·6	53	7·4	68	4·4	33	···	···	4·3	25	2·1	12	1·2	8	1·7	13	2·9	26	···	···	6·0	82
5	*5·9*	*82*	···	···	9·2	*84*	8·4	63	···	···	6·6	39	9·4	55	···	···	···	···	4·0	36	6·2	69	···	···
6	···	···	1·0	11	8·8	80	3·2	24	4·6	29	···	···	6·0	35	···	···	3·8	28	0·3	3	*7·3*	*82*	0·3	4
7	···	···	···	···	···	···	···	···	···	···	3·1	18	5·7	33	···	···	···	···	7·7	70	5·2	59	···	···
8	2·7	37	···	···	···	···	2·8	21	5·7	36	1·3	8	9·4	55	···	···	4·6	35	2·5	23	5·5	63	1·2	17
9	···	···	5·6	61	0·8	7	9·5	70	8·4	53	11·2	65	3·6	21	···	···	2·4	18	1·1	10	···	···	0·2	3
10	···	···	1·3	14	6·8	60	0·9	7	7·4	47	···	···	···	···	0·3	2	3·0	23	···	···	···	···	···	···
11	···	···	···	···	7·4	65	*11·3*	*82*	1·8	11	10·7	62	2·5	15	1·3	9	7·9	61	···	···	···	···	···	···
12	···	···	6·5	70	4·9	43	1·1	8	5·0	32	*13·5*	*78*	1·1	6	···	···	1·8	14	1·9	18	···	···	···	···
13	0·2	3	···	···	0·7	6	2·6	19	0·8	5	10·4	60	0·6	4	5·4	36	···	···	···	···	···	···	···	···
14	0·2	3	···	···	8·6	74	6·2	44	13·5	84	9·9	57	2·1	12	3·6	24	4·1	31	4·7	45	0·5	6	···	···
15	···	···	···	···	0·3	3	3·0	21	14·3	89	0·9	5	1·3	8	0·5	3	3·4	27	1·3	12	···	···	0·4	6
16	3·9	51	···	···	2·5	21	9·5	67	14·7	91	4·8	28	10·0	60	1·7	11	···	···	7·7	74	···	···	···	···
17	···	···	···	···	0·7	6	4·9	34	14·7	91	4·8	28	4·1	24	2·7	18	0·9	7	1·0	10	1·3	16	···	···
18	···	···	8·4	*86*	5·7	48	···	···	14·9	91	2·9	17	5·4	32	2·3	16	8·1	65	1·8	18	3·5	43	···	···
19	2·2	28	···	···	2·9	24	1·2	8	*15·0*	*92*	5·0	29	5·1	31	5·7	39	5·0	40	6·0	59	···	···	4·0	57
20	1·2	15	0·3	3	···	···	0·8	6	13·4	82	4·7	27	7·3	44	4·2	28	4·0	32	···	···	···	···	3·7	53
21	···	···	3·3	33	0·2	2	5·7	39	14·7	89	2·4	14	1·2	7	···	···	*8·5*	*69*	0·5	5	3·8	48	0·2	3
22	0·4	5	3·4	34	1·9	16	1·6	11	···	···	2·9	17	3·2	19	5·4	37	3·4	26	2·5	25	5·1	65	1·6	23
23	1·2	15	0·9	9	6·3	50	9·1	62	6·1	37	5·7	33	6·7	41	4·6	32	0·3	2	0·8	8	···	···	5·0	71
24	1·0	12	0·3	3	6·8	55	6·9	47	11·1	67	8·0	46	4·5	15	3·3	23	1·0	8	0·5	5	5·3	68	···	···
25	···	···	4·3	42	8·8	71	9·8	66	8·9	54	···	···	···	···	3·0	21	···	···	4·4	45	5·6	72	3·5	50
26	···	···	*8·9*	*86*	9·9	79	6·2	42	9·5	57	0·8	5	0·5	3	4·1	29	···	···	*8·6*	*89*	5·2	68	1·4	20
27	0·2	2	3·1	30	*10·5*	83	1·8	12	7·8	51	1·4	8	10·6	65	*8·7*	*62*	2·6	22	5·0	52	0·5	7	2·5	36
28	0·2	2	5·7	54	9·0	71	0·5	3	6·4	38	5·4	31	11·0	68	7·5	53	0·4	3	5·2	55	···	···	···	···
29	1·7	20	7·5	71	1·5	13	···	···	2·1	12	1·4	8	13·8	86	···	···	3·7	35	0·3	3	···	···	···	···
30	···	···			2·7	21	0·3	2	6·2	37	1·9	11	*14·2*	*88*	0·3	2	6·7	58	···	···	0·8	11	0·2	3
31	···	···			···	···			4·1	24			10·8	68	···	···			···	···			0·8	11
Mean	0·68	9	2·26	24	4·21	36	4·12	29	7·45	46	4·37	25	5·16	31	2·26	15	2·77	22	2·56	25	1·89	23	1·20	17
											Annual mean		3·25	27										

DURATION OF BRIGHT SUNSHINE

Monthly and annual totals between exact hours, local apparent time

84 ESKDALEMUIR: h_s = 1·5 m.

	Hour L.A.T. 3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total	Per cent. of possible
	hours																			%
Jan.	–	–	–	–	–	0·3	4·2	4·1	*5·3*	3·3	2·2	1·6	···	–	–	–	–	–	21·0	9
Feb.	–	–	–	···	1·4	4·4	8·0	9·2	*9·3*	8·7	*9·3*	9·1	4·8	1·3	···	–	–	–	65·5	24
Mar.	–	–	···	0·6	7·0	11·3	14·0	*16·0*	15·1	15·7	14·9	15·4	12·4	7·8	0·3	···	–	–	130·5	36
Apr.	–	···	1·0	6·7	7·1	9·7	11·8	11·8	12·5	*14·4*	13·1	11·1	9·0	8·5	5·5	1·3	···	–	123·5	29
May	···	2·4	12·2	15·7	17·6	16·3	16·5	15·6	16·7	18·2	17·1	18·6	*19·7*	15·8	13·4	11·8	3·2	···	230·8	46
June	···	2·0	3·5	8·3	10·2	9·2	10·3	11·2	11·5	*12·4*	10·2	8·0	9·4	10·4	8·8	4·2	1·5	···	131·1	25
July	···	1·7	7·9	10·7	12·0	12·2	12·6	*13·0*	10·4	11·9	11·8	12·7	11·8	10·3	9·8	10·1	1·2	···	160·1	31
Aug.	–	···	1·4	3·9	4·9	*8·4*	8·0	7·9	6·8	5·8	4·2	4·1	4·7	5·2	3·4	1·3	···	–	70·0	15
Sept.	–	–	···	0·4	2·2	6·0	5·9	7·6	7·1	9·1	10·9	*13·0*	12·5	7·1	1·3	···	–	–	83·1	22
Oct.	–	–	–	···	1·4	5·6	8·6	10·4	12·1	*12·7*	9·0	8·8	8·2	2·6	···	–	–	–	79·4	25
Nov.	–	–	–	–	···	1·8	6·7	9·6	9·5	9·7	9·4	7·0	2·9	···	–	–	–	–	56·6	23
Dec.	–	–	–	–	–	0·3	3·5	6·7	*8·8*	7·3	6·8	3·8	0·1	–	–	–	–	–	37·3	17
Annual	···	6·1	26·0	46·3	63·8	85·5	110·1	123·1	125·1	*129·2*	118·9	113·2	95·5	69·0	42·5	28·7	5·9	···	1188·9	27

Mean speed and highest instantaneous speed recorded each day (0h. to 24h., G.M.T.) by the pressure-tube anemograph

85 ESKDALEMUIR: h_a(height of anemograph above M.S.L.) = height of ground above M.S.L. + height of anemograph above ground = 235 m. + 15 m.

	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust
	metres per second																							
1	3·6	15	9·1	29	1·5	5	*12·7*	*28*	1·5	9	1·9	8	2·7	11	2·2	9	4·9	23	8·3	20	1·5	10	*0·2*	4
2	8·5	21	*12·5*	29	1·4	8	7·5	22	1·6	10	2·0	12	3·9	12	2·7	13	5·0	13	8·4	20	3·8	17	*9·5*	28
3	5·7	19	7·3	19	*0·7*	4	5·0	21	2·6	17	5·5	16	7·8	18	2·6	11	2·0	11	3·4	16	9·9	23	9·4	22
4	2·7	15	8·1	26	2·2	7	2·2	11	4·9	13	5·5	15	6·3	19	*0·3*	5	2·3	10	0·9	9	9·2	*27*	0·9	10
5	6·1	18	7·3	22	1·1	6	2·9	15	4·9	14	*9·6*	21	3·6	13	1·2	7	3·0	14	0·9	10	4·9	21	4·6	14
6	3·3	14	7·0	22	1·4	7	5·3	17	3·9	13	8·9	*30*	2·7	13	3·4	13	2·9	13	*0·2*	4	1·2	10	4·1	13
7	6·9	19	6·5	24	6·1	17	7·2	21	2·6	9	8·3	20	4·0	18	5·5	18	7·6	19	0·4	6	2·7	14	8·2	*30*
8	2·4	10	5·6	25	6·7	23	10·1	27	*1·1*	8	4·0	18	5·2	20	5·9	19	6·3	20	1·9	12	0·9	6	5·6	19
9	1·2	8	10·3	*36*	7·7	20	4·7	21	2·8	11	3·0	11	3·2	8	0·6	4	1·8	8	3·2	17	8·8	22	4·3	18
10	3·8	23	5·3	18	7·8	27	2·1	12	1·7	7	4·1	11	2·0	10	0·8	8	6·3	20	3·7	11	2·0	15	5·3	15
11	3·6	23	6·1	22	3·6	25	2·5	11	1·6	9	2·4	8	5·1	20	0·7	7	5·1	15	4·9	16	0·2	4	5·1	22
12	6·1	19	5·1	19	1·6	10	4·1	15	1·9	9	3·5	11	2·4	13	4·9	22	3·7	13	4·9	16	3·3	19	3·0	13
13	7·3	27	1·1	7	0·9	8	5·2	24	*6·4*	16	*1·3*	7	2·2	11	4·1	16	4·6	17	9·2	*26*	4·5	17	5·9	18
14	3·4	18	5·3	18	2·5	13	2·4	13	2·7	11	3·5	13	1·1	7	1·1	7	5·3	15	5·9	21	5·6	18	8·0	21
15	6·6	20	2·7	12	8·3	23	2·1	10	2·4	11	3·9	12	1·6	15	5·1	15	2·3	21	4·8	18	2·4	15	7·4	23
16	1·8	13	2·3	9	6·3	19	2·1	9	5·4	18	4·7	16	2·3	12	3·6	16	5·4	17	0·9	7	3·5	14	3·0	13
17	6·5	*28*	2·5	12	3·3	13	5·0	18	3·5	11	3·0	12	1·6	8	2·2	11	7·8	25	2·7	17	5·9	16	1·5	10
18	8·7	21	2·4	9	6·4	25	4·5	13	2·3	10	2·1	12	2·5	9	1·5	10	4·5	17	1·8	13	3·6	21	1·3	8
19	7·5	19	4·3	13	*10·2*	22	2·6	9	3·4	13	3·1	14	6·6	19	0·9	6	6·5	21	3·7	15	7·9	26	0·9	8
20	4·1	15	5·0	16	10·0	21	3·3	11	5·6	*19*	2·2	10	7·2	19	1·4	8	3·8	17	7·0	23	9·5	23	0·7	10
21	1·6	9	4·5	16	8·2	23	4·1	15	2·3	11	2·6	14	7·9	*27*	3·8	15	1·9	10	5·3	15	1·5	14	2·9	7
22	1·3	9	5·5	17	5 3	20	3·6	20	2·0	10	2·3	11	5·3	16	7·0	20	*0·2*	5	8·7	25	0·1	3	1·5	7
23	1·9	8	4·7	14	2·6	11	4·3	16	1·6	8	1·3	11	2·7	13	*10·2*	*23*	0·3	1	6·0	18	0·2	4	1·5	6
24	5·1	18	2·6	11	3·0	14	*2·1*	11	1·5	12	2·5	10	2·2	11	5·3	22	6·1	18	*9·6*	22	0·1	2	1·9	8
25	2·7	15	4·0	13	0·9	8	2·5	9	1·8	16	2·1	12	*8·3*	21	8·0	23	5·3	18	3·1	18	0·1	3	0·6	6
26	7·4	20	3·1	12	1·6	8	3·2	15	3·4	14	5·7	17	6·2	19	2·8	12	7·1	24	2·3	16	*0·0*	2	0·2	8
27	2·8	12	3·3	17	3·4	13	6·7	21	2·0	11	4·7	15	*0·6*	7	0·6	6	*11·5*	*31*	0·4	5	0·1	3	1·2	12
28	2·9	13	*0·4*	5	4·3	13	5·9	22	2·1	11	4·2	15	1·4	8	2·8	11	11·5	27	2·6	12	0·7	8	6·9	25
29	*1·1*	6	1·5	7	4·1	18	2·8	10	1·8	9	5·3	16	2·8	9	6·6	15	6·1	23	2·5	10	2·2	13	8·3	25
30	6·3	22			6·1	20	3·1	13	3·7	16	2·3	9	2·9	11	7·3	18	3·8	12	1·0	5	2·4	11	6·6	25
31	*9·9*	24			9·0	27			3·5	18			1·7	9	7·8	20			3·4	19			4·5	13

WIND

Monthly and annual means of mean wind speed between exact hours, G.M.T.

86 ESKDALEMUIR: h_a = 235 m. + 15 m.

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	metres per second																								
Jan.	4·9	4·9	4·9	4·8	4·3	4·0	3·9	3·9	*3·7*	3·8	4·3	4·1	4·7	4·9	5·0	5·0	5·0	5·2	4·7	4·6	4·7	4·9	5·0	*5·2*	4·6
Feb.	4·3	4·6	4·6	4·5	4·5	4·4	4·7	4·6	4·7	5·2	5·5	6·0	6·1	*6·6*	6·6	6·4	5·6	5·1	4·8	4·7	4·2	4·4	4·5	*4·2*	5·0
Mar.	3·9	4·1	3·9	4·0	4·3	4·2	3·8	3·9	3·7	4·9	5·4	5·8	*6·0*	5·9	5·9	5·4	5·0	4·5	3·6	*3·3*	3·6	3·7	4·1	4·3	4·5
Apr.	3·4	3·6	3·8	3·7	3·7	3·8	3·9	4·1	4·3	4·8	5·3	5·6	6·1	*6·2*	6·1	5·7	5·3	5·1	4·5	3·7	3·4	3·3	3·2	*2·9*	4·4
May	1·8	1·6	*1·4*	1·5	1·7	1·7	1·9	2·4	2·9	3·6	3·7	4·2	4·2	4·5	4·2	4·3	*4·5*	3·9	3·4	2·8	2·5	2·1	2·0	1·9	2·9
June	2·7	*2·4*	2·5	2·7	2·6	2·8	3·1	3·9	4·2	4·5	4·7	4·8	5·1	5·0	*5·2*	5·1	5·1	5·0	4·5	3·9	3·6	3·2	2·8	2·8	3·9
July	2·7	2·8	2·7	2·7	2·7	2·9	3·1	3·6	3·7	4·0	4·5	4·7	5·0	5·1	*5·3*	5·2	5·0	4·8	4·3	3·7	2·9	2·7	2·9	2·8	3·8
Aug.	2·9	2·8	*2·6*	2·7	3·1	3·1	3·2	3·4	3·8	4·2	4·3	4·5	4·7	*4·8*	4·7	4·3	4·5	4·1	3·6	3·3	3·3	3·0	3·0	3·3	3·6
Sept.	4·4	4·6	4·8	4·4	4·2	3·8	4·1	4·3	4·9	5·8	6·0	6·0	6·1	6·1	*6·2*	6·1	5·7	5·2	4·6	4·2	4·1	4·1	3·9	*3·8*	4·9
Oct.	3·1	3·2	3·4	3·4	3·4	3·6	3·7	4·0	4·1	4·6	5·2	5·2	*5·3*	5·2	5·2	4·5	4·1	4·0	3·6	3·3	3·2	*3·0*	3·1	3·0	3·9
Nov.	3·3	3·4	2·9	3·2	3·2	3·0	3·3	3·2	3·2	3·1	3·6	3·7	3·9	*4·1*	3·8	3·6	3·1	3·1	3·0	3·2	3·2	3·1	*2·8*	2·9	3·3
Dec.	2·9	*2·8*	3·5	3·7	3·9	4·5	4·8	*4·9*	4·8	4·6	4·5	4·7	4·8	4·6	4·6	4·5	4·4	4·1	3·9	3·5	3·1	3·1	3·2	3·1	4·0
Annual	3·4	3·4	3·4	3·4	3·5	3·5	3·6	3·8	4·0	4·6	4·8	4·9	5·2	*5·2*	5·2	5·0	4·8	4·5	4·0	3·7	3·4	3·4	3·4	*3·3*	4·1

DISTRIBUTION OF WIND SPEED, EXTREME VELOCITIES AS RECORDED BY PRESSURE-TUBE ANEMOGRAPH

87 ESKDALEMUIR: h_a = 235 m. + 15 m.

	DISTRIBUTION OF WIND SPEED								EXTREME VELOCITIES				
	More than 17·1 m./sec.		10·8 to 17·1 m./sec.		5·5 to 10·7 m./sec.	1·6 to 5·4 m./sec.	Less than 1·6 m./sec.	No record	Highest hourly wind			Highest gust	
	Dates of occurrence	Duration	No. of days	Duration	Duration	Duration	Duration	Duration	Veer from N.	Speed	Hour ended	Speed	Date
		hr.		hr.	hr.	hr.	hr.	hr.	°	m./sec.	day h.	m./sec.	day h. m.
Jan.	–	0	10	32	266	257	189	0	270	15	13 17	28	17 17 50
Feb.	2, 9,	10	9	39	231	276	140	0	310	19	9 10	36	9 1 55
Mar.	–	0	12	57	216	246	225	0	190	15	31 24	27	10 9 20
Apr.	1	1	6	39	176	347	157	0	200	17	1 3	28	1 2 10
May	–	0	0	0	83	409	252	0	210	10	13 20	19	20 8 10
June	–	0	3	15	159	384	162		250	15	6 21	30	6 2 20
July	–	0	5	18	146	376	204	0	210	17	12 12	27	21 11 35
Aug.	–	0	4	23	192	261	268	0	240	14	23 8	23	23 13 50
Sept.	27	2	8	43	242	295	138	0	250	18	27 5	31	27 3 35
Oct.	–	0	6	28	210	263	243	0	240	15	13 18	26	13 17 55
Nov.	–	0	6	47	127	206	340	0	240	15	19 14	27	4 1 15
Dec.	7	3	6	34	197	251	259	0	200	19	7 9	30	7 6 10
Year	5	16	75	375	2245	3571	2577	0	200	19	Dec. 7 9	36	Feb. 9 1 55

88 ESKDALEMUIR

	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.
	degrees Absolute																							
1	75·9	80·0	77·8	78·4	75·0	78·1	79·1	79·1	79·9	80·5	84·3	82·3	85·9	84·0	91·5	85·1	86·3	85·1	85·4	84·4	79·4	83·0	78·5	81·1
2	76·4	79·8	77·5	78·3	75·3	78·1	78·7	79·2	80·0	80·5	84·1	82·3	86·0	83·9	90·3	85·2	86·2	85·1	85·7	84·4	80·0	82·9	78·2	80·9
3	78·0	79·5	77·8	78·3	75·7	78·1	78·8	79·3	79·9	80·5	84·0	82·3	85·9	83·9	89·0	85·3	86·0	85·1	85·3	84·4	81·2	82·8	78·8	80·8
4	78·4	79·5	77·5	78·4	76·3	78·1	78·6	79·3	80·2	80·5	84·1	82·3	85·8	83·9	88·8	85·5	86·0	85·1	84·6	84·5	81·8	82·6	79·2	80·8
5	78·0	79·5	77·3	78·3	76·6	78·0	78·4	79·3	80·5	80·5	84·2	82·3	85·5	84·0	88·8	85·7	86·3	85·1	83·7	84·4	81·9	82·6	79·0	80·7
6	77·1	79·8	77·3	78·4	76·8	78·0	78·5	79·3	80·9	80·5	84·1	82·3	86·2	84·0	88·3	85·6	85·7	85·1	83·4	84·4	80·0	82·6	79·0	80·8
7	76·8	79·5	76·8	78·6	77·0	78·1	78·9	79·3	81·5	80·5	83·6	82·4	86·2	84·0	87·9	85·6	85·5	85·1	82·4	84·4	79·1	82·5	79·1	80·8
8	76·3	79·3	76·7	78·6	77·9	78·1	79·1	79·3	82·0	80·5	83·4	82·5	86·3	84·0	87·4	85·7	85·6	85·1	82·3	84·3	78·5	82·7	79·0	80·7
9	76·0	79·3	76·9	78·6	78·3	78·1	79·2	79·3	82·9	80·5	83·7	82·5	86·3	83·9	87·2	85·6	85·8	85·1	82·6	84·3	78·3	82·4	79·0	80·7
10	76·1	79·4	77·2	78·6	78·8	78·1	79·3	79·2	83·5	80·6	84·6	82·5	86·2	83·9	88·3	85·6	86·3	85·0	83·5	84·1	79·1	82·2	79·1	80·7
11	75·3	79·5	77·6	78·5	79·1	78·1	79·2	79·3	84·1	80·7	84·2	82·5	86·1	84·0	87·0	85·6	86·2	85·1	83·9	84·0	79·8	82·1	79·1	80·6
12	76·0	79·2	77·5	78·6	78·9	78·1	79·5	79·4	84·2	80·8	85·7	82·8	86·2	84·1	86·9	85·5	85·8	85·1	83·9	84·0	80·1	82·1	79·5	80·6
13	76·2	79·0	77·0	78·6	79·1	78·2	79·8	79·4	83·6	80·7	86·5	82·7	86·1	84·0	86·2	85·5	85·0	85·1	84·0	84·0	80·8	82·0	79·4	80·6
14	76·7	79·2	77·0	78·5	79·1	78·2	80·1	79·4	83·6	80·9	87·8	82·6	86·0	84·0	86·6	85·5	85·0	85·1	83·9	84·0	81·4	81·9	79·6	80·7
15	76·7	79·1	77·6	78·6	79·3	78·2	80·0	79·4	84·5	81·1	87·8	82·9	86·0	84·0	87·1	95·6	85·2	85·1	83·5	84·0	81·9	82·0	79·8	80·5
16	76·0	79·2	77·8	78·5	79·1	78·4	80·3	79·5	85·0	81·2	87·0	82·9	86·1	84·1	87·9	85·5	85·0	85·0	82·4	84·0	81·9	81·8	78·9	80·4
17	75·9	79·0	77·3	78·6	78·4	78·5	80·3	79·6	85·1	81·4	86·7	83·1	86·8	84·1	86·9	85·5	84·7	84·9	82·2	84·0	81·7	81·9	78·9	80·5
18	75·9	78·9	76·6	78·6	78·1	78·5	80·8	79·7	85·9	81·5	86·1	83·4	86·8	84·1	86·6	85·5	84·7	84·9	81·9	84·0	81·4	82·1	79·0	80·6
19	75·3	78·9	76·1	78·6	78·4	78·7	80·8	79·8	86·3	81·6	86·2	83·3	87·2	84·3	86·6	85·5	85·3	84·9	81·4	83·8	82·3	82·1	79·0	80·6
20	75·4	78·9	75·9	78·6	79·0	78·8	81·1	79·8	86·1	81·7	85·9	83·4	87·1	84·3	86·0	85·5	84·9	84·8	81·8	83·8	82·0	82·3	78·2	80·6
21	75·6	78·8	75·5	78·5	79·4	78·8	81·3	79·9	86·0	81·9	85·7	83·6	87·3	84·3	86·0	85·4	83·9	84·8	82·2	83·7	81·9	82·1	77·9	80·5
22	75·5	78·7	75·3	78·5	79·2	78·9	81·8	79·9	85·9	81·9	85·3	83·5	86·7	84·3	85·8	85·2	83·7	84·8	82·9	83·6	81·0	82·1	77·3	80·4
23	75·4	78·8	75·3	78·3	78·8	79·0	81·7	80·1	84·5	82·0	85·7	83·5	86·3	84·4	85·8	85·2	82·8	84·7	82·1	83·4	79·9	82·0	77·0	80·4
24	75·2	78·4	75·2	78·3	78·9	79·0	81·7	80·1	84·0	82·0	86·5	83·4	85·9	84·4	85·5	85·2	83·3	84·6	82·6	83·3	78·9	82·0	77·1	80·5
25	75·3	78·5	75·2	78·3	78·6	79·1	82·0	80·2	83·4	82·1	86·9	83·4	86·8	84·4	85·8	85·2	83·3	84·7	82·6	83·4	78·2	81·9	76·9	80·1
26	75·3	78·5	75·2	78·3	79·1	79·1	81·8	80·2	83·5	82·1	87·0	83·7	87·0	84·5	85·7	85·1	84·4	84·4	81·1	83·3	77·8	81·8	76·7	80·1
27	75·4	78·6	75·1	78·2	79·7	79·0	82·3	80·3	83·7	82·2	86·4	83·7	87·7	84·6	85·5	85·1	84·9	84·4	80·0	83·3	77·9	81·6	76·3	80·0
28	75·4	78·3	75·0	78·1	79·5	79·1	82·1	80·4	83·9	82·3	86·0	83·9	89·4	84·6	85·8	85·0	85·3	84·3	79·4	83·3	77·8	81·4	76·2	79·9
29	75·8	78·3	75·0	78·1	79·4	79·1	81·1	80·4	84·0	82·1	85·7	83·8	90·6	84·7	86·3	85·1	85·1	84·3	79·3	83·2	77·9	81·2	76·1	79·8
30	76·0	78·2			79·6	79·1	80·6	80·3	84·0	82·3	85·6	83·7	91·0	84·8	86·4	85·1	85·1	84·4	79·5	83·0	78·6	81·1	76·1	79·7
31	76·4	78·4			79·4	79·1			84·3	82·3			91·1	85·0	86·3	85·1			79·3	83·0			75·9	79·5
Mean	*76·1*	79·0	76·5	*78·4*	78·3	78·5	80·2	79·7	83·5	81·3	85·5	83·0	86·9	84·2	*87·1*	*85·4*	85·1	84·9	82·5	83·9	80·1	82·1	78·2	80·5
											Year		81·7	81·7										

MINIMUM TEMPERATURE "ON THE GRASS" DURING THE INTERVAL 18h. TO 7h., G.M.T.

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	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
	degrees Absolute											
1	73·9	76·0	71·7	76·4	*64·6*	75·4	81·2	84·8	82·0	84·2	79·8	64·4
2	79·1	78·4	70·6	74·9	67·6	78·3	78·5	81·6	77·0	85·8	81·2	68·3
3	78·8	74·1	76·6	72·9	68·8	79·3	82·1	81·8	83·0	80·2	82·1	82·6
4	72·0	74·0	71·6	69·4	75·1	78·4	84·2	79·0	83·1	72·7	79·1	72·3
5	72·7	74·7	66·4	67·2	77·2	78·6	74·9	83·0	82·1	72·0	74·1	68·3
6	71·5	72·8	66·8	70·4	79·7	78·9	75·2	84·2	73·6	72·5	68·5	75·9
7	72·7	69·9	67·8	73·5	78·0	79·3	82·3	85·3	78·2	67·7	67·5	76·4
8	72·1	72·0	79·3	74·7	77·6	78·1	76·7	83·0	79·8	72·3	70·6	73·4
9	68·3	77·4	78·3	75·4	77·4	74·2	76·2	83·3	82·3	77·4	65·4	72·3
10	72·2	73·9	77·4	69·9	80·6	80·2	81·2	82·5	84·1	82·1	79·1	75·4
11	73·0	72·7	80·3	*66·3*	77·8	79·5	81·0	75·2	81·9	84·6	72·5	78·6
12	72·8	72·9	69·6	72·6	79·0	77·9	81·1	82·1	79·1	76·9	79·3	77·9
13	76·9	67·7	75·9	78·3	72·8	79·0	81·0	80·3	74·0	81·0	82·6	72·6
14	72·3	75·4	72·6	73·4	76·0	82·7	82·0	81·8	81·7	81·0	82·3	79·8
15	72·9	75·1	75·5	67·7	72·0	84·1	75·5	82·9	80·8	75·6	83·1	74·0
16	66·7	74·4	72·6	70·3	73·7	82·2	76·7	83·5	76·0	68·1	79·3	72·6
17	65·8	72·2	72·2	70·2	75·4	80·8	78·7	79·1	81·7	70·6	75·4	78·5
18	71·9	66·2	66·9	78·8	76·3	78·1	81·7	74·1	81·1	73·1	77·3	78·8
19	71·5	67·5	76·7	80·4	71·8	76·8	84·9	73·9	83·5	70·7	75·3	68·1
20	70·2	71·8	80·1	79·4	78·4	*72·9*	82·1	*71·3*	78·3	78·0	76·3	63·1
21	67·8	67·8	77·7	77·0	68·9	78·9	82·5	73·9	70·9	81·9	74·2	73·5
22	69·0	67·8	73·6	79·3	76·8	76·1	80·3	75·1	70·7	82·7	64·7	70·1
23	66·1	71·5	71·7	73·0	73·4	77·8	73·4	82·1	*70·4*	76·6	65·7	66·4
24	*65·6*	70·4	70·9	72·4	67·5	76·9	*73·2*	80·8	80·3	79·8	*62·7*	68·1
25	73·1	69·0	*66·2*	73·1	65·5	83·3	85·4	80·6	82·7	74·1	63·8	72·7
26	71·0	64·9	69·1	69·0	69·5	85·0	89·0	80·9	81·0	*64·3*	64·8	*62·2*
27	70·3	68·0	72·9	80·0	70·6	79·0	86·0	73·4	84·8	65·1	71·5	64·6
28	74·2	*64·3*	69·1	79·0	67·6	80·5	85·9	77·7	84·3	67·3	73·2	71·7
29	72·2	65·0	72·9	71·9	73·4	78·5	87·8	83·6	82·4	73·7	70·1	73·0
30	70·9		76·2	73·1	70·7	75·3	85·8	85·1	82·3	75·0	79·9	72·9
31	76·3		73·9		79·9		85·0	85·1		76·5		68·8
Mean	71·7	*71·3*	73·0	73·7	73·7	78·9	*81·0*	80·4	79·8	75·6	74·0	72·2
						Year	75·0					

The initial 2 or 3 of the readings is omitted, i.e. 275·0 degrees is printed 75·0.

The minimum "on the grass" refers to the interval from 18h. on the previous day to 7h. on the day to which it is entered.

Add 0·16° to obtain temperature in degrees Kelvin where $T(°K.) = t(°C.) + 273·16$.

POTENTIAL GRADIENT (reduced to level surface)
Mean values for periods of sixty minutes between exact hours, G.M.T.

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	JANUARY, factor 4·30				FEBRUARY, factor 4·27				MARCH, factor 4·32			
	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
	volts per metre											
1	Z-	50	Z-	185	95	245	135	(Z-)	525	Z+	275	505
2	40	20	Z-	Z-	Z-	80	160	190	290	215	345	295
3	115	55	170	205	55	145	Z±	195	310	385	280	170
4	Z-	110	15	Z-	40	85	210	190	440	Z+	565	500
5	Z-	100	295	270	120	275	Z-	Z-	260	200	230	495
6	175	230	180	565	60	Z-	Z±	115	435	415	290	445
7	Z±	10	Z+	-130	120	-150	30	95	155	Z-	370	Z-
8	350	230	Z±	415	115	10	200	Z±	Z-	170	165	380
9	280	155	195	Z+	Z-	115	(140)	275	180	345	160	110
10	330	205	125	270	Z-	Z-	210	305	80	80	145	40
11	Z-	Z-	220	Z-	180	115	Z-	Z-	220	155	345	280
12	Z-	125	65	85	Z±	145	115	265	255	400	265	500
13	95	100	85	35	Z+	10	405	180	165	80	300	320
14	10	290	Z-	210	Z-	Z-	170	Z-	25	65	260	105
15	280	Z+	160	135	105	130	20	135	260	Z-	140	170
16	70	95	160	325	90	55	110	140	Z-	140	105	Z-
17	165	325	Z-	Z±	135	220	175	230	40	280	Z-	195
18	55	Z±	35	Z±	100	115	240	330	190	155	175	Z-
19	220	235	230	215	115	115	155	145	Z-	200	80	85
20	145	315	120	395	Z+	105	Z-	190	80	115	105	105
21	490	260	485	465	95	90	125	125	65	Z-	50	190
22	150	515	435	360	70	80	140	305	90	Z-	170	210
23	240	Z+	505	Z+	60	Z+	Z±	Z-	130	120	170	240
24	280	235	210	95	140	185	75	260	240	280	245	400
25	165	150	240	485	260	155	315	300	155	245	300	295
26	-15	105	Z-	145	230	500	305	505	370	260	260	Z+
27	370	310	270	290	245	200	150	225	525	535	300	420
28	195	Z-	275	385	155	245	315	430	70	120	-	-
29	Z±	Z+	245	325	350	450	360	465	-	-	Z-	120
30	325	235	10	195					Z-	Z-	Z-	300
31	20	Z-	85	Z-					65	Z-	Z-	170
(a)	198	186	201	275	133	161	185	243	216	225	234	271
(b)	225	226	209	300	150	165	182	259	223	242	249	281
Mean	(a) 215		(b) 240		(a) 181		(b) 189		(a) 237		(b) 249	

	APRIL, factor 4·25				MAY, factor 4·14				JUNE, factor 4·21			
	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
	volts per metre											
1	Z-	Z-	75	160	155	230	155	205	430	220	135	235
2	85	80	145	Z-	250	160	Z+	Z-	80	Z-	½Z-	100
3	360	145	Z±	210	485	375	115	80	Z-	21	90	Z-
4	210	130	Z±	320	Z-	35	345	Z±	285	180	150	Z-
5	140	90	165	245	Z-	Z-	135	160	120	155	Z+	Z-
6	Z±	Z-	165	160	160	150	130	265	130	Z-	Z-	Z-
7	15	Z-	Z-	Z±	150	250	150	235	Z-	25	175	230
8	Z-	Z±	Z-	195	190	145	140	115	265	-95	270	170
9	105	140	185	405	95	170	90	205	175	170	135	225
10	110	125	160	230	360	95	120	150	90	85	95	145
11	125	245	180	345	140	190	Z-	135	160	140	160	310
12	225	140	90	(10)	Z±	75	155	245	150	135	190	140
13	(10)	(80)	60	370	170	85	155	200	120	80	155	140
14	145	130	180	235	190	170	155	180	135	175	215	125
15	230	185	180	(620)	160	120	170	285	215	225	165	120
16	195	405	135	Z+	195	190	165	175	90	115	Z±	225
17	440	250	150	245	225	175	140	260	Z±	75	Z±	310
18	155	0	-205	270	150	130	170	175	Z-	Z-	Z±	40
19	180	420	175	180	75	170	205	220	70	175	65	115
20	80	30	85	155	145	185	170	115	105	110	110	205
21	230	145	210	525	170	85	130	205	Z-	215	Z-	170
22	175	Z+	165	205	65	-	Z-	65	135	80	Z+	120
23	100	295	195	245	55	120	Z±	165	180	60	105	125
24	255	140	180	305	105	155	Z+	150	235	95	115	245
25	440	170	125	80	115	125	Z+	255	-	330	210	150
26	55	255	245	205	115	140	95	130	60	210	125	225
27	115	35	105	70	150	170	115	130	125	25	Z±	10
28	10	Z-	120	115	115	115	15	105	Z-	175	Z-	195
29	60	310	Z±	75	80	95	60	60	-15	135	Z-	180
30	110	Z+	165	185	95	190	185	Z-	105	90	170	-10
31					40	170	155	Z-				
(a)	161	171	152	236	157	154	145	173	167	135	149	170
(b)	174	160	137	263	177	162	132	175	166	125	147	168
Mean	(a) 180		(b) 183		(a) 157		(b) 161		(a) 155		(b) 151	

The potential gradient is reckoned as positive if the potential increases upwards. For indeterminate potential gradient the following notation is used: Z+, indeterminate, positive value; Z-, indeterminate, negative value; Z±, indeterminate, in magnitude and sign.

(a) Mean of all positive readings.

(b) Mean from all complete days using both positive and negative readings.

POTENTIAL GRADIENT (reduced to level surface)
Mean values for periods of sixty minutes between exact hours, G.M.T.

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	July, factor 4·30				AUGUST, factor 4·38				SEPTEMBER, factor 4·53			
	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
						volts per metre						
1	30	160	180	230	345	Z+	85	180	40	255	115	185
2	140	105	115	120	135	70	70	55	65	Z±	Z±	150
3	70	70	105	125	-	55	100	215	125	55	215	250
4	Z-	Z+	Z±	155	85	95	125	230	130	230	40	60
5	275	260	195	270	125	290	110	200	75	120	45	190
6	240	235	35	165	120	Z±	355	205	130	280	135	230
7	125	170	145	275	Z±	Z-	165	150	130	115	40	Z-
8	295	225	180	260	-85	-50	15	270	210	185	215	215
9	160	305	140	155	70	135	185	80	155	65	160	200
10	145	65	170	325	70	80	135	205	305	Z±	145	255
11	25	150	115	165	300	170	165	110	155	160	Z+	230
12	80	105	240	205	100	0	Z-	Z-	250	145	Z+	310
13	-110	230	-15	130	215	170	210	85	170	370	35	245
14	30	120	145	315	-	80	150	420	115	60	145	210
15	95	145	100	290	Z±	195	120	200	Z±	225	175	300
16	125	200	150	370	100	245	Z-	155	65	65	60	170
17	125	180	170	190	145	110	Z-	175	90	105	250	155
18	210	255	115	255	190	155	110	245	145	105	120	180
19	230	155	130	140	240	150	140	385	50	230	140	150
20	100	110	155	Z-	165	190	200	245	110	95	220	345
21	Z±	120	70	105	265	210	Z-	75	185	265	210	300
22	175	Z-	Z-	410	160	175	Z±	Z+	175	-80	135	Z+
23	135	235	20	Z+	75	75	Z-	180	200	170	40	215
24	240	105	135	260	85	165	145	50	70	200	50	95
25	155	225	75	65	110	85	Z±	5	110	Z-	175	190
26	55	Z+	360	495	135	135	145	240	-	-	Z-	Z-
27	260	285	235	330	210	240	195	190	65	145	210	Z+
28	140	275	275	255	-	225	245	275	70	120	30	80
29	245	315	260	415	30	230	135	300	60	70	45	30
30	155	210	135	145	220	320	150	90	10	10	180	310
31	90	180	280	Z±	Z-	35	Z-	235				
(a)	148	186	158	236	154	151	150	188	124	154	128	202
(b)	145	190	147	227	137	159	140	186	110	153	123	191
Mean		(a) 182	(b) 177			(a) 161	(b) 155			(a) 152	(b) 144	

	OCTOBER, factor 4·46				NOVEMBER, factor 4·37				DECEMBER, factor 4·38			
	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
						volts per metre						
1	215	110	65	165	90	90	185	230	200	Z+	335	455
2	110	200	85	155	225	415	275	110	205	Z-	Z-	135
3	135	170	175	185	Z-	110	65	Z-	115	105	130	255
4	30	140	160	280	20	Z-	Z-	90	Z-	100	200	260
5	115	105	125	505	205	135	160	100	255	250	-	-
6	85	35	330	450	Z-	205	260	425	-	-	330	230
7	530	455	130	300	285	135	125	350	Z±	15	125	220
8	180	345	260	265	105	125	160	220	Z-	35	Z-	180
9	90	80	305	250	150	115	110	60	360	Z-	Z-	265
10	150	330	-175	170	60	70	15	50	Z±	235	Z-	270
11	275	295	165	120	30	30	375	355	195	185	Z-	Z-
12	60	80	145	255	315	45	-70	Z-	Z-	220	325	165
13	110	90	Z-	Z-	200	385	300	265	150	Z-	135	200
14	Z+	Z-	90	335	100	210	195	215	Z-	205	Z±	Z-
15	70	160	Z-	275	190	80	185	55	115	95	65	110
16	100	210	255	190	20	15	155	260	75	90	275	210
17	0	Z-	160	Z-	225	230	200	Z-	100	285	Z+	445
18	255	Z-	230	555	60	120	200	Z+	355	385	390	Z+
19	230	105	190	200	275	150	Z-	170	260	430	465	360
20	35	65	35	140	75	70	45	60	255	210	350	105
21	200	150	110	275	70	60	65	65	Z-	140	160	540
22	25	Z-	155	170	30	55	325	510	150	195	410	225
23	Z-	Z-	90	135	180	325	495	Z+	160	355	435	375
24	120	170	80	Z-	285	330	375	540	225	235	445	260
25	70	130	205	185	395	570	455	Z+	130	240	310	375
26	305	100	180	170	Z+	465	370	445	300	330	415	545
27	70	80	215	350	200	230	375	410	150	300	380	Z±
28	205	335	105	Z-	65	30	30	390	375	375	Z-	175
29	-40	175	Z-	305	20	5	345	245	Z-	40	95	110
30	145	235	Z-	Z+	225	120	400	Z+	70	75	180	240
31	150	155	100	80					115	Z+	255	Z±
(a)	145	173	159	249	152	170	231	244	196	205	282	268
(b)	157	167	153	235	126	136	200	236	169	215	316	278
Mean		(a) 181	(b) 178			(a) 199	(b) 175			(a) 238	(b) 245	

The factor used for converting the potential at the collector to potential gradient in volts per metre in the open is given for each month.

Annual means				
(a)	163	181	181	230
(b)	163	175	178	233
	(a) 187		(b) 187	

POTENTIAL GRADIENT (reduced to level surface): DIURNAL INEQUALITIES

The departures from the mean of the day are adjusted for non-cyclic change†

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	Hour G.M.T. 0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Non-cyclic change†	No. of days	Mean
	volts per metre																										v./m.
	0a days only*																										
Jan.	-31	-4	-15	-20	-41	-42	-38	-3	-61	*-96*	-40	-15	0	-41	-18	+29	+38	+30	+9	+71	*+96*	+67	+55	+68	+2	6	275
Feb.	+2	-42	*-47*	-45	-41	-35	-27	-14	-6	-12	-8	-11	-1	-5	-5	-21	+5	+37	+64	*+69*	+58	+57	+15	+5	+19	9	241
Mar.	+24	-18	-26	-33	-14	-62	-47	-45	-10	-33	-82	*-95*	-60	-39	-55	-48	-15	+57	+72	+72	+118	*+137*	+120	+75	+12	5	294
Apr.	-31	-30	-20	+2	-27	-1	+28	+6	+5	+3	-9	-20	-42	-33	-38	*-47*	-41	-5	+9	+83	*+109*	+90	+8	+5	+20	7	222
May	+6	+3	-7	-5	-18	-19	-15	-19	-12	-10	-18	-32	*-37*	-28	-14	-6	+5	+38	*+51*	+46	+38	+23	+13	+23	-31	9	173
June	-14	-12	-35	-6	+4	*+76*	+32	-8	-31	-15	-3	-13	*-36*	-28	-14	-15	-4	-8	0	+25	+40	+47	+17	-4	-33	3	163
July	+16	-1	-22	-14	+26	+29	+32	+8	+13	-2	-13	-35	-38	-35	-30	-35	*-42*	-20	-4	+20	*+55*	+38	+35	+19	-9	11	214
Aug.	+6	-2	-21	*-52*	+30	+32	+28	+2	-22	-50	-47	-45	-35	-17	+4	-17	+2	+45	*+92*	+80	+9	+13	-12	-12	-24	4	166
Sept.	+5	-11	-33	-32	-37	-42	-33	*-45*	-40	-31	-32	-24	-19	-20	+8	0	-6	+18	+37	*+86*	+63	+79	+52	+54	+16	6	158
Oct.	-2	-16	-26	-16	-45	-48	-59	-3	-7	-50	*-66*	-47	-61	-39	-25	-14	+21	+68	+83	*+138*	+114	+50	+44	+9	-126	6	215
Nov.	-28	-57	-44	-49	-59	-55	*-65*	-52	-55	-7	-15	-14	-15	+1	+16	+41	+35	+70	+93	*+105*	+103	+62	+1	-7	+1	7	204
Dec.	-94	-75	-93	-90	-64	-53	-29	-27	-4	-4	-28	-11	+17	+69	*+109*	+74	+59	+65	+73	+83	+47	+34	-11	-45	+18	6	303
Year	-12	-22	*-32*	-30	-24	-18	-16	-17	-19	-26	-30	-30	-27	-18	-5	-5	+5	+33	+48	*+73*	+71	+58	+28	+16	-	-	219
Winter	-38	-45	-50	-51	*-51*	-46	-40	-24	-31	-30	-23	-13	0	+6	+25	+31	+34	+51	+60	*+82*	+76	+55	+15	+5	-	-	256
Equinox	-1	-19	-26	-20	-31	-38	-28	-22	-13	-28	*-47*	-46	-45	-33	-27	-27	-10	+35	+50	+95	*+101*	+89	+56	+36	-	-	222
Summer	+3	-3	-21	-19	+11	+29	+19	-4	-13	-19	-20	-31	*-37*	-27	-13	-18	-10	+14	+35	*+43*	+35	+30	+13	+7	-	-	179
	1a and 2a days only*																										
Jan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Feb.	-6	-22	-17	-21	-41	-18	-13	-49	-15	+16	+11	-14	-19	+1	*-50*	-31	+33	+49	+28	+38	*+63*	+53	+31	-9	+37	4	133
Mar.	+30	+7	-9	-10	-7	+5	+17	-7	-28	-14	-3	-2	+40	+25	+43	*+53*	-4	-60	-70	*-75*	-17	+16	+28	+42	+63	5	198
Apr.	+2	-2	+10	-24	*-35*	-15	+2	-22	-22	-22	-11	-20	-28	-11	-10	-18	-2	+2	-9	+31	+35	+48	*+87*	+39	+67	6	150
May	+19	+11	+18	-2	-12	-11	+19	+7	-4	0	-5	-21	*-40*	*-40*	-34	+2	+12	-1	-1	-4	+13	+24	+19	*+25*	+35	7	139
June	-4	+4	+6	+8	-9	*+26*	+17	+1	*-25*	-11	-20	+6	-2	-16	-2	+11	-4	-1	+2	+2	+7	-9	+22	+5	-13	7	149
July	+22	-13	-58	-25	+6	+21	-4	-6	-6	-16	-45	*-68*	-36	-38	-28	-2	-6	+21	+28	+35	*+95*	+61	+24	+35	-48	8	154
Aug.	+37	+65	-21	-6	+17	+61	+50	+24	-12	-19	-39	-43	-4	-27	-61	-78	*-103*	-54	0	+23	*+73*	+62	+48	-1	+11	4	182
Sept.	+13	+9	+4	-2	-20	+35	+52	+63	*+67*	0	-37	-36	-57	*-106*	-85	-29	+7	-25	+15	+47	+10	+20	+34	+18	+44	6	166
Oct.	-28	-63	-95	-100	-74	-56	-54	-97	*-131*	-98	+12	+84	+32	+60	+66	+41	+76	+91	+72	+94	*+111*	+49	-1	+10	+84	3	209
Nov.	-7	-15	+1	+25	+51	*+83*	+55	+2	0	-13	-57	-27	+10	-30	+9	+6	-1	+72	-72	*-78*	-59	-8	+8	+47	+110	3	203
Dec.	-120	-105	-109	-108	-89	-61	-109	-86	-79	-32	-36	-71	-47	+39	+118	+223	*+297*	+255	+184	+77	+69	-58	-25	*-128*	-57	1	161
Year	-3	-10	*-23*	-22	-18	+7	+3	-14	-21	-17	-19	-18	-13	-12	-3	+15	+25	+29	+15	+16	*+33*	+21	+23	+7	-	-	154
Winter	-33	*-35*	-31	-26	-20	+1	-17	-31	-23	-7	-21	-28	-14	+3	+19	+49	*+82*	+79	+35	+9	+14	-3	+3	+23	-	-	224
Equinox	+4	-12	-23	-34	-34	-8	+4	-16	-29	*-36*	-10	+7	-3	-8	+3	+12	+19	+2	+2	*+42*	+35	+33	+37	+27	-	-	181
Summer	+19	+17	-14	-6	+1	+24	+21	+7	-12	-11	-27	*-33*	-21	-30	-31	-17	-25	-9	+7	+14	*+47*	+45	+28	+16	-	-	156

Winter: January, February, November, December
Equinox: March, April, September, October
Summer: May to August

* For explanation of 0a, 1a, 2a days see p.90, *Observatories' Year Book, 1938.*

† See p.10, *Observatories' Year Book, 1938.*

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	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE	
	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient
		hr.		hr.		hr.		hr.		hr.		hr.
1	2c	8·1	2c	8·1	0b	···	2c	12·4	0a	···	1b	2·1
2	1b	3·2	2c	4·5	1b	0·1	2c	6·1	1c	1·8	2c	14·4
3	1b	1·3	2b	1·2	1b	0·1	1b	1·7	2b	3·0	2c	12·3
4	2c	15·1	2b	3·9	0b	···	1b	1·2	2c	12·1	2b	3·7
5	2b	6·2	2c	6·5	0a	···	1a	0·5	2b	3·9	1b	1·0
6	0a	···	2c	6·1	0a	···	2c	4·7	0a	···	2c	14·3
7	2c	12·3	2c	6·6	2b	6·1	2c	10·6	0a	···	2b	3·8
8	1b	0·5	2b	7·8	2c	6·5	2c	5·7	0a	···	2b	4·2
9	1b	2·6	2b	5·0	1b	0·9	0a	···	1a	0·1	0a	···
10	1b	1·9	2c	5·8	1a	0·6	1a	0·5	0a	···	1a	0·8
11	2c	17·7	2c	6·1	1a	0·2	0a	···	2c	3·5	1a	0·1
12	2c	5·3	1b	0·3	0a	···	(1a)	0·2	1b	1·2	0a	···
13	2c	7·4	1b	2·6	(1a)	0·1	(1a)	0·3	1a	1·1	1b	0·1
14	2c	7·2	2c	3·7	(1a)	0·1	1b	0·6	0a	···	1a	0·1
15	1b	2·1	1a	0·7	1b	1·5	0a	···	0a	···	1a	0·1
16	0a	···	1a	0·3	2c	4·3	0b	···	0a	···	2c	4·2
17	2c	6·8	0a	···	2b	4·3	0b	···	1a	0·1	2c	4·9
18	2c	4·9	0a	···	2b	3·4	2c	9·7	0a	···	2c	5·6
19	1c	0·2	0a	···	2c	6·7	0a	···	0a	···	1b	1·1
20	1b	2·5	1b	0·5	1a	0·1	1a	0·7	1a	0·1	0a	···
21	0a	···	0a	···	2b	5·3	0a	···	1a	0·3	2c	5·2
22	0b	···	1a	0·1	1b	2·0	1c	2·7	(2b)	(5·1)	2c	5·5
23	0b	···	1b	2·8	0a	···	1a	0·3	1b	2·0	1a	0·2
24	0a	···	1a	0·6	0a	···	1a	0·5	1b	0·9	1a	0·1
25	0a	···	0a	···	1a	0·1	0a	···	0b	···	(1b)	-
26	2c	9·4	0a	···	1b	0·1	0a	···	1b	0·8	1b	1·9
27	0a	···	0a	···	0b	···	1a	0·7	1b	0·2	2c	4·3
28	2b	3·4	0a	···	(1a)	1·1	2c	8·1	1a	0·7	2c	5·3
29	2c	3·7	0a	···	(1b)	0·9	2c	4·6	1a	0·1	2c	6·4
30	2b	3·6			2c	8·7	1b	1·6	2c	6·1	1a	2·3
31	2c	4·9			2c	12·1			2c	5·4		
Total	-	130·3	-	73·2	-	65·3	-	73·4	-	48·5	-	104·0
No. of days used	-	31	-	29	-	31	-	30	-	31	-	29
Mean	-	4·2	-	2·5	-	2·1	-	2·4	-	1·6	-	3·6

	JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration negative potential gradient
		hr.		hr.		hr.		hr.		hr.		hr.
1	1a	0·5	0b	···	1b	1·7	1c	4·3	1a	0·1	0b	···
2	1a	0·1	(1a)	1·9	2c	3·0	(1a)	0·2	1b	0·7	2c	8·3
3	2b	3·8	(1a)	0·1	1c	2·3	1b	0·3	2c	10·1	1b	2·6
4	2c	7·5	0a	···	1a	0·3	(0a)	···	2c	9·5	1b	1·1
5	0a	···	1a	0·3	1a	1·1	(0a)	···	1b	1·7	(0a)	···
6	1a	0·3	2c	3·5	1a	0·8	1a	0·4	1b	3·2	(1b)	1·4
7	0a	···	2b	7·3	2c	7·7	(0a)	···	0a	···	2c	3·7
8	0a	···	2b	4·2	1a	0·1	0a	···	0a	···	2c	5·6
9	0a	···	0a	···	(1a)	0·2	1a	0·2	0a	···	2c	8·6
10	1a	1·1	1a	0·3	1b	2·2	1b	4·5	(1a)	0·5	2c	6·8
11	1a	0·7	0a	···	1b	0·9	1c	2·2	1b	0·5	2c	11·0
12	2c	3·2	2c	15·3	2c	5·0	(1a)	0·1	2c	9·3	2c	6·4
13	2b	5·9	1b	1·8	1a	0·3	2c	9·0	1a	0·2	2c	6·5
14	1a	0·3	(1b)	0·2	0a	···	1b	1·9	1b	1·4	2c	7·4
15	1a	0·3	1b	2·6	2c	4·7	1b	2·7	1a	0·1	1b	1·0
16	0a	···	1b	2·1	0a	···	0a	···	2b	3·7	1a	0·4
17	0a	···	1b	1·8	0a	···	2c	5·6	2c	5·6	1c	0·1
18	1a	0·5	1a	0·5	0a	···	1b	1·8	1b	1·9	0b	···
19	1b	0·1	1a	0·1	1b	1·5	1b	1·5	1b	1·9	0a	···
20	1b	0·8	0a	···	0a	···	(1a)	0·6	1b	1·5	1b	0·9
21	2c	3·5	2c	6·2	0a	···	0a	···	0a	···	1b	2·2
22	2c	3·5	1b	0·9	1b	1·9	1b	2·3	0a	···	0a	···
23	1b	0·3	2c	4·6	1a	0·2	2b	3·2	0c	···	0a	···
24	0a	···	1b	2·7	(1a)	0·1	1b	2·6	0a	···	0a	···
25	1b	0·2	2c	4·8	(1a)	0·1	1b	1·3	0c	···	0a	···
26	1b	0·3	1b	0·7	2c	8·7	0a	···	0b	···	0a	···
27	0a	···	(0a)	···	1b	1·2	1a	0·5	0a	···	1b	1·6
28	0a	···	(0a)	···	1b	1·4	1b	0·9	(0b)	···	2c	6·5
29	0a	···	1b	1·3	(0a)	···	2b	3·2	(0a)	···	2c	3·9
30	0a	···	1b	0·2	(0a)	···	2c	4·2	0c	···	1b	1·9
31	1b	1·7	2c	10·5			1b	1·0			2b	2·3
Total	-	34·6	-	73·9	-	45·4	-	54·5	-	51·9	-	90·2
No. of days used	-	31	-	31	-	30	-	31	-	30	-	31
Mean	-	1·1	-	2·4	-	1·5	-	1·8	-	1·7	-	2·9

Annual values: Character Frequency 0 1 2
No. of days used 103 157 106

Duration: Total 845·2
No. of days 365
Mean 2·32 hr.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

16,000γ (0·16 C.G.S. unit) +

93 ESKDALEMUIR (H) — JANUARY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	545	541	546	548	550	555	555	546	538	530	527	526	532	538	535	513	519	527	527	511	522	539	522	498	533
2 *d*	517	523	523	524	534	560	543	535	534	520	512	514	515	519	520	530	535	514	527	485	522	527	515	514	523
3 *d*	523	523	530	546	563	551	524	526	522	519	518	506	488	509	512	594	515	562	492	464	457	456	464	492	515
4 *q*	491	494	497	496	500	502	504	504	502	492	490	487	491	495	498	503	509	515	515	520	527	527	525	523	*504*
5	522	522	524	523	529	532	530	531	527	521	512	502	503	500	498	511	519	511	519	527	523	519	527	526	519
6	529	529	529	532	535	527	546	543	524	514	522	521	520	515	511	523	527	511	518	532	531	534	531	527	526
7	550	527	534	532	538	543	547	542	525	531	523	519	504	508	524	532	528	525	522	527	511	514	509	524	527
8 *d*	522	519	519	523	547	553	544	535	526	523	518	506	486	510	519	515	516	515	515	499	527	527	534	554	523
9 *d*	529	518	528	531	531	524	534	527	519	511	508	507	512	514	522	527	528	530	527	526	530	554	539	530	525
10	533	532	531	534	538	545	544	542	532	521	515	512	517	526	519	506	526	534	534	537	538	535	534	543	530
11	538	532	529	535	531	540	550	544	527	519	513	506	509	515	516	517	527	535	535	534	529	535	535	534	529
12	539	544	535	532	537	544	542	544	538	531	520	506	515	523	527	531	535	538	533	530	533	544	535	538	533
13	535	534	534	536	539	542	545	543	540	529	518	514	515	522	526	526	527	523	533	538	539	534	539	537	532
14 *q*	537	539	539	540	543	546	546	547	547	536	526	520	514	519	525	531	528	527	541	543	545	543	543	539	536
15	537	538	538	539	543	545	546	546	543	529	521	517	518	522	526	529	536	538	545	545	545	539	547	529	536
16	537	541	542	543	542	550	545	549	546	526	516	517	519	525	522	537	538	538	535	537	541	541	539	541	536
17 *d*	542	540	539	544	546	550	553	552	560	549	536	537	539	526	497	510	538	503	506	514	514	516	512	512	531
18	521	522	518	510	514	520	529	521	518	502	510	510	510	512	517	522	525	532	534	536	524	532	533	526	521
19	532	522	519	519	522	526	533	534	537	522	526	525	518	518	534	537	539	537	526	542	537	538	538	537	530
20	535	536	533	537	537	542	543	539	535	524	525	527	521	530	524	536	532	529	537	537	529	531	542	543	533
21	525	522	532	536	539	534	529	530	530	528	524	522	522	518	523	531	537	527	525	512	524	535	522	526	527
22	519	522	529	544	526	534	530	533	533	527	525	529	531	522	520	529	537	538	538	526	524	534	545	538	531
23	533	534	535	535	535	538	542	537	533	528	518	518	525	534	539	537	539	543	541	533	533	538	531	540	534
24 *q*	537	538	541	542	543	544	543	542	537	522	516	518	522	533	538	535	537	541	545	545	541	539	540	538	537
25 *q*	539	540	539	540	542	548	552	543	533	526	530	528	529	530	532	534	533	536	545	546	547	549	546	546	539
26 *q*	546	544	543	546	542	545	545	543	541	529	522	523	529	534	539	538	537	539	545	545	548	544	545	544	*540*
27	540	540	541	541	544	548	556	556	546	537	537	540	536	524	523	536	536	538	536	536	540	544	544	542	*540*
28	542	541	541	541	542	546	547	546	544	533	532	527	521	522	528	532	529	534	546	548	546	549	547	548	539
29	537	544	523	532	537	541	543	547	546	535	529	523	518	517	532	533	501	528	536	536	528	542	529	533	532
30	535	537	544	549	547	548	544	532	528	517	513	516	506	506	516	518	524	521	525	536	541	538	533	548	530
31	529	548	529	534	536	541	545	542	539	532	523	518	515	515	519	523	532	540	544	545	545	544	542	541	534
Mean	532	532	532	534	537	541	*541*	539	534	525	520	517	*516*	519	522	528	529	530	531	529	530	534	532	533	530

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

94 ESKDALEMUIR (D) — 11° + — JANUARY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	51·9	51·9	52·1	52·5	52·4	54·0	52·8	52·4	52·3	52·9	54·0	55·2	56·6	58·1	59·3	59·2	56·9	55·7	54·4	54·7	50·7	48·4	45·6	40·3	53·1
2 *d*	48·4	49·4	52·1	51·8	54·6	54·2	53·2	54·0	53·3	52·5	53·8	56·0	56·9	57·4	57·2	58·7	60·4	59·5	59·7	58·5	50·8	52·6	50·3	48·5	*54·3*
3 *d*	50·0	52·5	54·0	50·8	51·5	51·1	50·6	50·8	51·8	52·2	52·5	57·5	59·2	59·3	62·3	58·2	58·1	64·4	56·5	36·9	47·5	49·2	49·4	51·0	53·2
4 *q*	50·7	50·8	51·9	51·7	51·5	51·3	51·1	50·9	50·6	52·0	52·7	53·2	54·0	54·4	54·3	54·3	53·8	52·9	52·9	52·4	52·4	51·9	52·0	52·1	52·3
5	52·1	52·4	52·9	53·0	53·3	53·4	52·7	52·8	51·6	52·4	52·7	53·7	55·1	55·8	56·1	56·5	55·4	56·9	54·2	48·4	50·5	49·3	51·6	51·9	53·1
6	52·1	52·9	52·8	53·0	53·3	53·8	54·0	53·5	53·7	54·8	55·1	55·2	55·7	57·2	56·8	57·0	58·1	57·7	54·9	54·4	52·7	51·5	52·0	51·1	*54·3*
7	48·8	49·3	52·1	52·7	52·8	52·9	53·3	53·1	56·2	54·3	54·4	56·4	57·4	56·1	58·3	57·9	58·5	56·9	56·3	53·7	50·7	44·0	47·3	49·7	53·5
8 *d*	45·3	48·8	51·8	55·4	55·4	55·1	56·1	54·3	52·9	52·5	53·3	54·4	56·5	56·9	58·3	57·7	56·3	54·3	49·4	50·3	51·9	51·9	50·2	44·8	53·1
9 *d*	50·0	47·3	54·7	51·1	55·7	56·0	55·1	54·9	52·5	52·5	53·9	53·2	55·6	55·2	54·5	54·3	53·1	53·4	52·8	52·1	49·7	47·5	49·7	50·9	52·7
10	51·5	51·9	52·6	53·6	54·9	53·2	52·4	52·1	51·7	50·9	51·9	53·8	54·3	56·3	57·4	55·4	54·2	54·3	53·3	49·4	50·0	51·5	51·0	50·9	52·9
11	50·2	49·5	52·1	51·5	53·8	54·1	52·5	52·5	52·1	49·3	52·8	53·8	55·4	56·6	55·8	53·8	54·4	53·7	53·1	52·7	49·3	52·0	52·0	51·8	52·7
12	52·5	53·1	52·3	52·2	52·2	52·1	52·2	51·1	50·9	51·7	53·0	53·8	54·1	55·8	55·8	55·1	54·1	53·6	54·5	52·9	49·1	46·3	51·7	52·0	52·6
13	52·2	52·7	52·5	52·4	52·2	52·5	52·1	51·6	51·1	50·7	51·5	54·0	55·7	56·6	56·9	55·7	54·4	52·8	52·9	52·9	51·8	50·2	50·1	52·2	52·8
14 *q*	52·8	52·7	52·6	52·6	52·5	52·4	52·2	51·9	51·5	52·0	52·2	54·3	55·4	56·9	56·6	56·1	54·0	53·4	53·9	53·5	52·6	52·2	52·1	52·0	53·3
15	52·3	52·5	52·5	52·4	52·6	52·1	52·1	51·6	51·1	51·4	52·3	53·7	54·7	55·1	55·6	56·1	54·8	53·5	53·4	53·3	52·7	52·1	46·9	49·5	52·7
16	52·0	52·7	52·9	52·5	52·7	52·2	50·7	51·5	51·2	50·7	52·5	53·5	54·0	56·0	55·8	55·0	54·3	53·9	54·1	54·1	52·5	51·8	51·2	51·8	52·9
17 *d*	52·1	52·1	52·4	52·9	52·7	52·6	52·4	52·3	51·2	51·2	53·0	55·4	59·0	62·1	64·3	59·6	62·8	60·7	58·6	52·5	38·0	41·0	47·9	49·4	53·6
18	51·3	44·4	45·4	49·4	51·5	51·6	51·7	51·4	51·0	51·8	54·4	55·6	57·0	57·9	57·6	57·5	55·4	55·2	54·5	54·1	51·5	52·6	51·5	50·8	52·7
19	48·1	44·6	46·9	48·2	50·3	51·7	51·2	50·9	50·8	51·9	54·2	58·1	57·5	57·7	56·3	55·1	56·5	56·1	53·3	52·3	52·4	51·3	51·1	52·1	52·4
20	52·3	52·5	50·8	50·7	50·4	49·6	49·5	50·7	50·7	51·4	53·9	56·6	57·1	60·6	60·3	58·4	56·9	57·7	53·7	53·6	51·7	50·3	44·6	50·2	53·1
21	48·4	51·8	51·7	50·6	51·1	50·8	51·8	51·4	50·9	52·2	52·7	54·5	57·8	58·6	59·0	55·2	55·7	48·8	50·3	54·0	50·2	47·8	48·2	40·8	*51·8*
22	46·3	49·5	48·6	46·0	50·1	49·9	51·1	51·2	51·1	52·4	53·4	54·9	55·6	56·1	56·8	54·8	54·6	54·9	54·5	55·2	54·0	52·3	47·9	49·5	52·1
23	50·5	52·4	53·1	54·3	52·3	50·6	51·2	51·1	51·1	51·7	53·1	55·0	56·1	56·8	56·3	55·7	54·5	55·8	56·4	53·9	51·6	51·5	51·4	52·3	53·3
24 *q*	53·7	53·3	53·1	52·5	51·9	51·5	51·2	51·1	50·5	51·1	53·3	55·0	56·3	56·4	55·5	54·4	53·6	53·6	53·1	53·2	53·3	52·5	51·3	51·4	53·0
25 *q*	52·5	52·4	52·3	52·0	52·0	51·7	50·5	50·6	50·3	50·7	53·2	54·7	56·6	56·4	56·0	55·2	55·6	54·2	54·9	53·9	52·5	52·2	52·1	52·1	53·1
26 *q*	52·2	51·6	52·2	52·0	51·5	50·5	50·5	50·2	50·0	49·5	52·0	54·7	56·3	56·8	55·7	55·1	54·8	54·0	53·8	53·4	53·3	52·2	51·6	51·3	52·7
27	50·5	49·8	49·7	50·0	50·6	50·7	49·7	50·5	50·7	50·5	51·8	54·2	57·6	58·4	59·7	59·6	59·7	59·3	58·7	55·4	52·4	52·1	51·6	50·6	53·5
28	50·9	51·6	52·2	52·3	52·3	51·9	51·8	51·4	50·6	50·6	53·1	55·0	56·1	56·9	56·5	56·6	54·9	53·1	54·2	53·4	52·5	52·1	52·0	52·1	53·1
29	51·7	46·1	44·6	50·9	52·0	52·4	52·5	52·4	51·5	50·7	52·1	57·7	57·2	57·1	58·4	57·4	57·1	55·9	54·3	52·8	49·1	41·9	47·6	50·4	52·2
30	51·5	52·2	53·3	51·8	50·9	51·3	52·1	52·2	50·5	50·7	52·1	54·9	57·1	58·2	58·4	59·4	55·3	49·8	53·0	53·3	52·4	51·7	50·3	48·2	52·9
31	48·3	52·3	47·7	50·5	51·5	52·3	51·3	51·5	50·5	49·4	49·9	52·2	54·8	57·7	58·4	56·9	55·8	54·2	53·5	52·9	52·2	51·6	51·5	51·6	52·4
Mean	50·7	50·9	51·5	51·7	52·3	52·2	52·0	51·9	51·5	51·6	52·9	54·9	56·2	57·1	*57·4*	56·5	55·9	55·2	54·3	52·7	51·0	50·2	50·1	*50·1*	53·0

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

95 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — JANUARY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	1155	1155	1155	1155	1154	1153	1152	1153	1154	1153	1153	1153	1150	1150	1159	1171	1174	1172	1183	1188	1187	1171	1165	1166	1162
2 *d*	1160	1159	1161	1161	1156	1142	1143	1152	1157	1160	1160	1161	1164	1162	1165	1171	1178	1204	1218	1228	1207	1182	1177	1174	1171
3 *d*	1167	1165	1160	1143	1117	1106	1121	1141	1149	1152	1158	1160	1167	1179	1216	1300	1273	1328	1337	1298	1226	1194	1188	1182	*1193*
4 *q*	1177	1175	1175	1177	1177	1178	1178	1178	1177	1177	1176	1176	1174	1173	1177	1176	1174	1174	1176	1177	1173	1171	1171	1171	1175
5	1169	1168	1167	1167	1166	1166	1167	1168	1170	1170	1173	1172	1166	1171	1184	1185	1183	1183	1182	1184	1176	1177	1173	1171	1173
6	1167	1166	1166	1165	1163	1163	1160	1161	1165	1165	1164	1164	1167	1161	1172	1172	1176	1182	1183	1178	1176	1172	1171	1168	1169
7	1153	1153	1152	1155	1157	1158	1159	1160	1161	1161	1163	1165	1168	1167	1167	1168	1173	1172	1177	1178	1186	1197	1188	1174	1167
8 *d*	1159	1156	1159	1154	1141	1138	1147	1154	1159	1162	1165	1166	1167	1161	1165	1177	1178	1179	1192	1190	1179	1171	1165	1156	1164
9 *d*	1147	1135	1131	1144	1142	1139	1151	1158	1167	1165	1166	1168	1168	1171	1171	1172	1168	1168	1170	1171	1172	1162	1153	1159	1159
10	1161	1161	1161	1161	1155	1154	1156	1159	1164	1154	1155	1157	1161	1160	1160	1167	1177	1173	1165	1164	1164	1161	1159	1159	1161
11	1140	1141	1147	1148	1147	1143	1142	1147	1154	1153	1153	1156	1154	1158	1161	1166	1164	1160	1159	1161	1165	1159	1157	1155	1154
12	1153	1147	1148	1152	1153	1150	1151	1151	1152	1148	1149	1153	1153	1151	1155	1159	1159	1157	1160	1162	1163	1158	1155	1154	1154
13	1154	1153	1153	1153	1153	1152	1152	1152	1153	1153	1153	1150	1150	1154	1159	1160	1164	1168	1167	1163	1160	1159	1157	1155	1156
14 *q*	1155	1155	1154	1154	1154	1153	1152	1150	1152	1153	1153	1153	1153	1153	1156	1160	1161	1159	1159	1157	1155	1154	1153	1153	1155
15	1154	1153	1153	1153	1153	1153	1152	1152	1151	1152	1153	1151	1153	1152	1156	1160	1160	1160	1157	1156	1155	1154	1153	1153	1154
16	1153	1152	1153	1153	1153	1150	1150	1150	1150	1150	1154	1154	1155	1155	1159	1161	1165	1162	1161	1161	1160	1159	1156	1154	1155
17 *d*	1154	1154	1154	1154	1154	1153	1151	1150	1148	1141	1137	1141	1141	1149	1180	1173	1170	1195	1204	1198	1196	1170	1165	1166	1162
18	1160	1157	1150	1153	1156	1159	1159	1160	1158	1155	1152	1149	1149	1153	1159	1166	1166	1165	1165	1167	1171	1167	1165	1166	1159
19	1165	1165	1160	1161	1161	1162	1161	1160	1157	1153	1148	1149	1153	1153	1155	1156	1160	1162	1171	1169	1165	1162	1161	1160	1160
20	1157	1156	1155	1153	1149	1149	1151	1153	1153	1153	1154	1153	1150	1155	1160	1159	1165	1171	1175	1174	1173	1168	1164	1147	1158
21	1154	1155	1154	1154	1153	1153	1154	1155	1155	1154	1155	1154	1154	1153	1156	1163	1166	1176	1177	1188	1183	1172	1163	1148	1160
22	1147	1154	1154	1149	1149	1150	1153	1154	1154	1154	1153	1150	1153	1154	1159	1159	1160	1159	1161	1168	1177	1172	1165	1162	1157
23	1159	1156	1153	1147	1144	1149	1150	1153	1153	1153	1155	1154	1154	1153	1155	1158	1157	1156	1159	1165	1166	1162	1165	1161	1156
24 *q*	1159	1159	1156	1155	1155	1154	1154	1154	1155	1153	1154	1153	1154	1153	1154	1155	1158	1155	1154	1156	1158	1157	1160	1159	1156
25 *q*	1156	1156	1154	1154	1153	1149	1147	1149	1149	1145	1143	1148	1152	1153	1155	1157	1159	1159	1156	1157	1157	1155	1155	1154	1153
26 *q*	1154	1154	1154	1150	1149	1149	1148	1148	1149	1149	1147	1144	1146	1148	1151	1150	1152	1153	1153	1153	1154	1156	1159	1156	1151
27	1155	1157	1154	1153	1152	1150	1147	1142	1140	1137	1135	1135	1136	1137	1147	1154	1156	1160	1165	1168	1167	1162	1160	1159	1151
28	1155	1154	1154	1154	1154	1153	1150	1150	1147	1147	1142	1141	1146	1146	1152	1156	1161	1162	1156	1154	1154	1152	1152	1151	1152
29	1149	1135	1137	1142	1147	1148	1148	1148	1147	1148	1148	1150	1151	1152	1155	1167	1184	1173	1167	1165	1166	1162	1154	1152	1154
30	1153	1153	1150	1142	1142	1142	1143	1148	1149	1147	1143	1144	1149	1159	1161	1169	1174	1179	1174	1169	1161	1158	1160	1153	1155
31	1148	1129	1129	1141	1145	1146	1148	1149	1150	1148	1146	1144	1143	1144	1151	1160	1160	1156	1154	1154	1153	1153	1153	1151	*1148*
Mean	1156	1155	1154	1153	1152	*1151*	1151	1153	1155	1154	1153	1154	1155	1156	1163	1169	1170	1173	*1175*	1175	1171	1165	1163	1159	1160

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

96 ESKDALEMUIR — JANUARY

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination				Vertical force						
	Maximum 16,000γ +		Minimum 16,000γ +		Range	Maximum 11° +		Minimum 11° +		Range	Maximum 44,000γ +		Minimum 44,000γ +		Range				
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ				°A.
1	5 57	563	483	19 19	80	19 11	61·9	36·9	23 16	25·0	19 35	1192	1148	12 48	44	0,2,2,0,2,2,4,3	15	1	82·5
2 *d*	5 33	566	430	19 13	136	19 2	75·1	45·7	23 16	29·4	19 20	1241	1137	6 2	104	2,3,2,1,1,3,5,3	20	1	82·5
3 *d*	15 25	*757*	*410*	20 2	*347*	18 0	*88·1*	*19·8*	19 34	*68·3*	18 6	*1417*	*1101*	5 6	*316*	3,3,3,3,4,7,6,2	31	2	82·5
4 *q*	20 26	531	486	11 24	45	13 7	54·8	49·3	1 6	*5·5*	7 40	1179	1169	24 0	10	1,0,1,0,0,1,2,0	5	0	82·5
5	19 55	551	494	13 52	57	17 29	57·9	44·9	19 39	13·0	15 3	1189	1162	12 40	27	0,1,2,2,2,2,3,2	14	1	82·3
6	6 46	551	496	18 7	55	17 0	60·3	49·2	24 0	11·1	18 30	1184	1159	6 43	25	1,2,3,2,2,3,3,2	18	1	82·3
7	0 15	567	484	20 46	83	14 51	60·9	41·9	21 59	19·0	21 34	1200	1147	0 50	53	3,2,3,2,2,2,3,3	20	1	82·3
8 *d*	23 47	597	464	19 0	133	14 11	60·8	41·2	23 43	19·6	18 19	1198	1133	4 44	65	3,3,3,3,3,3,4,4	26	1	82·3
9 *d*	21 9	578	490	11 1	88	4 39	60·3	42·5	21 8	17·8	20 40	1173	1125	2 23	48	4,3,2,2,2,1,1,3	18	1	82·2
10	23 54	563	497	15 8	66	14 23	58·3	47·1	20 6	11·2	15 20	1178	1146	24 0	32	0,2,2,1,3,3,3,3	17	1	82·2
11	6 9	555	500	11 27	55	13 3	57·4	46·8	20 32	10·6	15 22	1167	1137	0 32	30	2,2,2,2,1,2,2,0	13	0	82·1
12	21 3	571	496	11 28	75	13 58	56·6	38·3	20 59	18·3	20 51	1165	1143	1 11	22	2,2,1,3,2,1,4,3	18	1	82·0
13	6 25	546	510	10 49	36	13 58	58·4	48·2	22 2	10·2	17 45	1171	1148	11 43	23	0,0,0,2,2,2,2,2	10	0	82·1
14 *q*	8 7	549	510	12 22	39	14 9	57·9	51·0	8 58	6·9	16 59	1165	1149	8 10	16	0,0,1,1,1,2,0,0	5	0	82·1
15	22 23	578	514	11 36	64	15 23	56·9	43·0	22 25	13·9	15 22	1161	1147	22 30	14	0,1,0,1,1,1,1,3	8	1	82·1
16	5 28	554	514	10 12	40	13 54	57·6	49·8	5 53	7·8	16 38	1165	1147	5 40	18	1,2,1,2,2,1,1,1	11	0	82·1
17 *d*	9 10	565	476	14 39	89	14 29	72·5	32·1	20 49	40·4	18 30	1208	1136	10 28	72	0,1,2,3,4,3,5,4	22	1	82·1
18	19 8	539	494	9 26	45	13 10	60·1	40·3	1 50	19·8	20 39	1173	1147	12 5	26	3,2,2,2,1,1,2,1	14	1	82·1
19	19 13	547	505	18 31	42	11 32	60·0	42·2	1 28	17·8	18 59	1176	1146	10 42	30	3,2,2,2,2,1,3,1	16	1	82·1
20	22 59	580	511	14 29	69	13 33	62·8	41·4	22 34	21·4	19 3	1177	1143	23 16	34	1,2,2,1,3,2,3,3	17	1	82·1
21	23 13	573	502	17 21	71	13 57	61·7	33·8	23 12	27·9	19 38	1190	1140	23 53	50	2,2,2,1,2,4,3,4	20	1	82·8
22	3 23	555	499	0 1	56	12 39	58·3	41·8	0 9	16·5	20 12	1179	1143	0 1	36	3,3,2,2,2,1,3,3	19	1	82·1
23	23 41	547	514	10 43	33	13 42	57·5	49·6	5 9	7·9	20 35	1168	1142	4 18	26	1,2,1,1,2,1,2,2	12	1	82·1
24 *q*	19 9	550	512	11 0	38	12 54	57·7	50·1	9 0	7·6	22 32	1161	1152	9 15	*9*	1,0,0,1,2,1,1,1	7	0	82·1
25 *q*	6 21	556	525	9 17	*31*	13 33	56·9	50·0	8 32	6·9	17 19	1161	1141	10 22	20	0,1,2,1,0,2,1,0	7	0	82·1
26 *q*	20 23	550	518	10 49	32	13 20	57·4	48·5	9 33	8·9	23 0	1159	1142	11 8	17	1,1,0,2,1,0,1,1	7	0	82·1
27	7 0	565	515	14 7	50	14 0	61·4	48·7	6 48	12·7	19 22	1170	1131	11 1	39	1,1,2,2,3,1,3,1	14	0	82·1
28	19 10	553	513	12 11	40	13 43	57·6	50·2	8 56	7·4	17 0	1166	1137	10 57	29	0,0,0,1,1,2,2,1	7	0	82·1
29	21 28	561	478	16 10	83	14 8	60·5	39·5	1 52	21·0	16 31	1186	1129	1 40	57	4,2,1,2,2,4,3,3	21	1	82·2
30	3 9	557	488	13 18	69	15 0	61·4	44·0	17 44	17·4	17 38	1185	1138	4 42	47	2,2,2,2,3,3,3,2	19	1	82·2
31	1 37	560	506	13 0	54	1 28	58·7	44·7	2 20	14·0	15 31	1163	1111	1 59	52	3,2,1,1,2,2,0,0	11	1	82·2
Mean	- -	566	495	- -	71	- -	60·9	43·6	- -	17·3	- -	1186	1141	- -	45	-	-	0·71	82·2

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

97 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — FEBRUARY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *q*	555	537	537	544	548	550	549	545	541	533	528	521	518	526	535	542	546	548	549	552	553	553	550	549	542
2	551	549	548	549	557	557	557	553	537	528	513	502	493	507	516	528	532	512	528	529	520	521	538	538	532
3 *d*	530	541	555	551	557	561	568	544	510	495	507	509	498	490	507	513	525	525	536	534	542	550	549	541	531
4	538	533	540	535	544	541	537	528	533	528	516	513	501	505	506	521	513	529	540	532	525	525	533	533	527
5	544	532	528	544	538	540	544	540	536	525	517	505	506	517	512	521	519	521	529	528	521	535	532	548	528
6	540	541	541	540	540	541	542	544	540	532	518	510	500	510	514	524	528	544	544	545	542	535	540	531	533
7	525	536	540	542	540	548	544	537	537	532	524	515	500	509	518	515	532	533	538	546	546	540	538	536	532
8	550	539	537	538	536	538	541	541	542	542	537	528	521	525	522	525	528	539	543	544	545	541	537	531	536
9 *q*	549	534	542	537	538	542	545	544	540	531	528	524	521	524	528	529	534	536	538	546	547	546	548	548	537
10	548	549	557	557	560	563	561	572	551	542	546	546	542	543	546	549	543	549	541	544	547	547	545	545	*550*
11	544	555	548	538	540	546	548	545	540	528	524	524	523	526	528	524	524	536	536	537	532	526	544	545	536
12	546	546	545	545	548	549	552	552	544	536	527	528	526	513	532	529	533	532	538	540	543	543	543	544	539
13	532	536	544	543	548	554	555	552	540	523	516	509	527	531	524	532	537	531	544	549	548	544	528	535	537
14	540	541	540	543	548	552	550	552	545	521	508	501	503	500	520	526	526	515	517	515	514	522	520	522	527
15 *d*	528	528	528	536	549	553	554	551	544	525	512	499	494	491	502	523	520	520	545	500	519	508	514	503	523
16 *d*	507	531	516	523	517	531	547	526	508	504	480	486	494	512	516	520	516	536	528	536	531	539	524	528	*519*
17	515	523	526	520	519	544	534	528	520	505	488	496	499	508	509	524	516	524	533	536	541	547	539	531	522
18 *d*	539	538	528	532	534	548	545	539	536	509	500	516	518	524	511	499	527	530	548	568	553	528	534	532	531
19	527	530	527	525	533	536	543	536	520	512	508	510	516	512	520	520	522	528	538	544	556	550	539	529	528
20 *q*	533	534	532	536	538	536	538	537	532	522	514	511	509	514	523	530	537	540	544	542	544	543	543	544	532
21 *q*	543	542	540	540	541	542	541	538	529	516	508	506	509	520	528	535	540	543	544	548	548	546	544	550	535
22 *q*	548	547	530	538	536	544	545	541	530	518	510	510	512	518	518	525	531	540	543	544	548	550	548	546	534
23 *d*	552	555	552	537	544	556	560	556	548	524	510	496	496	500	520	513	501	501	512	516	512	527	528	526	527
24	532	536	536	536	537	538	540	540	524	519	519	514	511	515	520	520	531	541	536	532	504	520	530	530	528
25	529	530	532	532	533	537	543	541	537	520	509	508	509	516	523	525	531	540	539	540	536	536	540	540	530
26	542	544	544	544	546	548	548	548	543	532	520	517	511	521	524	534	536	540	545	556	553	550	550	548	539
27	548	541	544	536	541	544	552	548	540	530	523	520	531	542	535	532	536	544	549	552	553	544	528	528	539
28	512	527	545	527	523	530	552	552	528	516	500	495	502	516	520	520	539	536	543	548	548	547	543	532	529
29	548	540	539	536	536	544	544	536	530	518	510	504	516	519	532	539	543	532	536	536	544	542	545	546	534
Mean	538	538	539	538	540	545	*548*	544	535	523	515	511	*511*	516	521	525	529	533	538	539	538	538	538	537	532

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

98 ESKDALEMUIR (D) — 11° + — FEBRUARY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 *q*	52·9	49·6	50·5	51·5	51·6	51·7	51·6	51·5	50·9	50·3	51·4	53·3	55·1	56·6	57·1	56·6	54·9	54·1	53·4	52·6	52·2	51·8	51·5	51·7	52·7
2	51·7	51·7	52·0	52·5	49·7	50·4	54·2	53·2	52·6	51·3	53·2	55·1	57·8	60·2	59·8	59·3	59·3	59·8	54·1	53·1	49·5	48·7	50·2	51·2	53·8
3 *d*	51·4	52·3	53·0	51·2	51·6	50·9	51·5	51·8	53·1	55·7	57·5	57·7	59·3	57·6	56·6	56·1	55·1	54·3	53·8	52·9	52·7	52·6	52·4	52·1	*53·9*
4	51·3	52·8	53·3	53·8	53·7	51·9	51·3	54·3	51·7	52·0	52·3	54·3	56·6	57·1	57·9	58·4	54·9	53·9	54·1	53·8	52·2	49·8	49·7	49·5	53·4
5	50·7	50·4	54·5	53·9	50·7	50·8	50·9	50·6	50·5	51·0	52·3	53·6	56·6	58·9	59·4	57·0	50·4	54·0	53·1	49·8	46·0	50·1	48·7	48·6	52·2
6	51·0	52·1	52·7	52·0	51·8	51·3	51·0	50·4	51·2	51·6	52·5	54·6	56·5	57·8	57·8	56·9	54·7	54·0	53·9	53·5	52·8	49·8	41·3	39·7	52·1
7	50·1	51·4	52·7	52·6	53·7	54·3	52·8	51·3	50·0	49·1	50·0	52·7	55·7	56·6	58·1	54·3	55·4	55·0	53·8	51·1	50·5	52·5	50·3	46·2	52·5
8	44·3	48·1	51·1	50·5	51·2	52·1	51·9	51·9	51·0	50·5	52·0	54·3	56·2	58·2	56·6	55·4	53·9	53·6	53·8	53·0	52·8	51·0	42·9	49·4	51·9
9 *q*	50·9	49·3	50·5	51·1	51·6	51·8	51·8	51·3	51·0	50·6	52·1	53·7	54·3	56·2	56·8	55·5	54·5	53·8	52·7	52·1	52·2	52·0	52·0	51·7	52·5
10	52·0	52·0	52·7	52·7	52·7	52·2	54·3	53·8	50·2	48·6	49·7	53·0	52·9	55·0	56·4	56·6	56·0	55·6	54·4	52·9	52·2	51·8	51·4	51·3	52·9
11	51·1	51·9	49·1	53·4	50·6	50·9	51·1	50·1	49·2	49·1	51·0	52·3	54·6	55·8	55·6	54·9	55·4	54·4	53·3	52·5	50·0	48·3	50·4	51·0	51·9
12	51·3	51·5	51·5	51·8	51·8	51·9	51·8	50·6	49·1	49·3	50·2	53·6	54·6	55·6	56·4	54·1	53·7	53·4	52·7	52·4	51·3	50·0	48·2	47·3	51·8
13	43·3	47·9	52·4	52·2	52·0	51·5	51·0	50·1	48·9	48·6	50·4	53·0	57·3	57·7	55·8	54·6	55·3	54·9	53·7	53·0	52·1	52·0	47·3	49·6	51·9
14	49·4	51·2	51·9	52·0	52·1	51·5	51·3	51·1	49·3	48·5	51·0	54·3	56·7	58·2	58·1	59·5	59·9	59·7	54·6	51·1	48·7	47·7	44·9	44·7	52·4
15 *d*	48·3	46·8	50·1	54·0	55·5	50·8	51·0	51·1	51·5	51·8	53·1	55·6	59·1	59·6	57·2	59·3	58·5	57·5	59·1	56·8	50·4	42·9	40·4	44·1	52·7
16 *d*	48·3	40·6	46·6	48·8	53·8	52·1	52·2	52·9	51·8	52·6	53·4	53·1	55·1	56·5	55·7	56·7	47·9	52·9	55·2	53·8	49·2	44·2	46·8	45·0	51·1
17	45·0	46·1	46·6	49·7	49·4	48·2	48·6	49·3	50·0	50·7	53·5	56·8	56·7	58·5	58·3	56·2	53·0	52·3	53·8	53·6	49·7	50·0	48·5	49·7	51·4
18 *d*	50·2	50·1	46·6	48·2	51·0	48·4	53·2	54·2	51·9	51·8	51·0	52·8	54·3	57·9	58·5	52·2	54·1	53·0	48·5	46·3	49·2	49·5	48·4	47·3	51·2
19	51·2	49·8	51·5	53·3	52·4	49·3	48·5	49·4	49·4	50·7	52·4	53·0	56·1	55·5	58·3	56·4	54·7	53·0	52·8	53·0	50·0	48·4	42·7	50·2	51·7
20 *q*	50·2	50·9	50·5	50·7	50·3	49·7	49·3	49·4	49·3	49·1	51·9	54·3	55·8	56·7	56·3	55·1	52·1	51·4	52·4	52·7	52·1	52·0	51·8	51·2	51·9
21 *q*	51·5	51·5	51·3	51·4	51·3	51·0	50·3	49·5	48·4	48·4	50·2	52·7	55·0	56·2	55·7	54·4	53·7	53·0	52·9	53·4	52·9	52·0	51·9	51·5	52·1
22 *q*	47·6	44·7	46·8	46·7	49·2	49·3	49·3	48·8	48·4	49·1	51·2	54·7	56·9	57·7	56·6	54·9	53·1	52·7	52·0	51·9	51·7	51·8	51·9	51·7	51·2
23 *d*	52·3	52·1	51·1	49·3	47·4	48·8	46·8	46·8	46·8	48·5	52·3	54·4	59·3	59·3	62·8	63·8	55·0	49·9	50·5	50·3	48·4	48·6	48·4	50·9	51·8
24	51·4	51·4	50·7	51·2	51·3	50·9	50·1	49·1	50·2	50·0	52·0	54·0	54·6	56·5	56·2	54·5	53·4	53·9	53·5	53·8	45·5	43·0	50·5	51·6	51·6
25	51·3	51·3	51·2	51·3	51·2	50·8	50·2	49·3	48·5	48·9	49·7	52·1	54·4	54·8	54·5	53·7	53·4	53·0	52·9	51·9	51·2	51·3	50·9	50·7	51·6
26	50·7	51·4	51·5	51·4	51·3	51·0	50·3	49·7	48·6	47·7	48·9	52·1	53·3	55·5	54·8	54·3	53·1	53·7	53·0	53·0	52·9	52·0	50·4	50·5	51·7
27	50·4	45·9	45·0	46·3	48·2	50·4	50·1	49·4	48·5	49·4	52·9	56·3	57·5	60·0	58·3	56·9	54·9	54·7	54·6	54·0	53·6	52·2	49·5	43·8	51·8
28	44·0	45·8	43·2	42·8	48·3	49·2	50·1	49·3	47·7	47·5	49·3	52·0	55·5	58·1	58·4	56·2	56·3	56·2	54·6	52·9	52·5	51·1	49·9	48·3	*50·8*
29	55·7	51·2	48·5	50·1	51·5	50·3	47·8	49·1	48·2	49·3	51·2	53·9	57·8	59·2	61·0	60·2	59·9	54·0	53·0	52·4	51·9	51·1	48·4	43·1	52·5
Mean	50·0	49·7	50·3	50·9	51·3	50·8	50·8	50·7	49·9	50·1	51·7	53·9	56·1	57·4	*57·4*	56·3	54·7	54·2	53·5	52·5	50·9	49·9	48·7	*48·7*	52·1

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

99 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — FEBRUARY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *q*	1145	1135	1145	1148	1148	1148	1148	1148	1147	1148	1147	1150	1150	1152	1153	1153	1154	1153	1151	1151	1151	1151	1150	1149	1149
2	1149	1149	1149	1149	1144	1143	1139	1138	1144	1149	1148	1151	1156	1160	1167	1174	1195	1196	1186	1179	1180	1179	1168	1162	1161
3 *d*	1160	1159	1155	1155	1153	1151	1149	1154	1161	1160	1165	1162	1167	1190	1169	1171	1168	1169	1165	1165	1165	1161	1161	1160	1162
4	1161	1161	1159	1160	1159	1160	1160	1157	1153	1149	1151	1153	1153	1155	1161	1168	1177	1177	1168	1170	1176	1171	1161	1153	1161
5	1150	1153	1150	1137	1146	1153	1154	1156	1155	1156	1154	1153	1143	1150	1157	1167	1179	1174	1168	1170	1172	1163	1163	1154	1157
6	1151	1150	1150	1150	1151	1151	1151	1151	1151	1150	1149	1148	1149	1155	1158	1163	1159	1159	1155	1155	1155	1158	1163	1155	1154
7	1152	1151	1151	1151	1150	1147	1147	1149	1151	1150	1149	1149	1151	1155	1157	1164	1163	1161	1161	1159	1157	1156	1156	1156	1154
8	1148	1147	1141	1139	1143	1147	1149	1149	1149	1147	1140	1140	1139	1142	1150	1156	1157	1156	1155	1154	1155	1157	1158	1154	1149
9 *q*	1140	1143	1147	1148	1149	1149	1149	1148	1148	1149	1143	1143	1143	1147	1151	1155	1155	1154	1153	1153	1152	1151	1151	1152	1149
10	1151	1151	1148	1148	1147	1147	1143	1139	1141	1143	1141	1140	1141	1143	1148	1156	1163	1159	1153	1150	1148	1148	1148	1148	1148
11	1148	1145	1139	1143	1147	1146	1145	1150	1148	1147	1148	1147	1143	1147	1155	1164	1157	1154	1154	1154	1154	1159	1154	1151	1150
12	1148	1148	1148	1148	1146	1146	1143	1143	1143	1142	1137	1137	1139	1143	1148	1148	1148	1151	1151	1152	1151	1149	1148	1143	1146
13	1133	1131	1130	1138	1143	1143	1144	1144	1144	1142	1138	1139	1137	1141	1147	1154	1154	1155	1153	1150	1148	1149	1153	1147	*1144*
14	1139	1141	1146	1148	1147	1147	1147	1148	1148	1147	1144	1143	1144	1150	1155	1163	1171	1184	1189	1194	1185	1177	1165	1155	1157
15 *d*	1147	1142	1137	1137	1127	1132	1138	1142	1138	1137	1137	1138	1139	1148	1161	1175	1186	1181	1175	1209	1199	1181	1168	1137	1155
16 *d*	1097	1115	1113	1125	1128	1121	1127	1131	1132	1144	1149	1150	1153	1159	1161	1171	1187	1182	1176	1173	1173	1169	1159	1153	1148
17	1148	1141	1142	1137	1133	1137	1142	1147	1147	1143	1145	1148	1153	1161	1165	1170	1177	1179	1171	1171	1166	1158	1156	1159	1154
18 *d*	1155	1143	1135	1143	1150	1150	1143	1137	1141	1145	1148	1148	1148	1148	1164	1181	1179	1171	1170	1161	1154	1159	1154	1147	1153
19	1148	1151	1156	1153	1144	1148	1151	1150	1150	1150	1149	1148	1149	1153	1160	1165	1171	1170	1165	1161	1161	1148	1145	1147	1154
20 *q*	1150	1153	1153	1150	1150	1153	1154	1154	1155	1157	1155	1148	1149	1154	1155	1157	1160	1160	1157	1158	1156	1155	1154	1154	1154
21 *q*	1155	1154	1154	1154	1153	1153	1154	1155	1159	1155	1154	1150	1151	1153	1154	1155	1154	1154	1155	1154	1155	1154	1154	1154	1154
22 *q*	1154	1150	1149	1148	1148	1149	1150	1152	1154	1152	1150	1144	1148	1153	1158	1158	1157	1155	1154	1154	1153	1153	1153	1153	1152
23 *d*	1148	1144	1137	1134	1137	1137	1136	1138	1142	1143	1141	1147	1159	1184	1201	1224	1234	1237	1200	1187	1178	1169	1159	1159	*1166*
24	1159	1159	1158	1158	1156	1156	1156	1158	1159	1154	1152	1150	1153	1155	1160	1160	1157	1160	1169	1180	1209	1188	1165	1162	1162
25	1161	1160	1160	1160	1159	1159	1156	1155	1155	1152	1151	1147	1144	1143	1149	1155	1154	1156	1154	1155	1159	1159	1156	1156	1155
26	1155	1155	1155	1155	1154	1153	1153	1151	1155	1154	1149	1144	1146	1148	1153	1156	1155	1154	1153	1150	1151	1151	1152	1150	1152
27	1148	1142	1137	1138	1143	1147	1147	1148	1151	1148	1142	1139	1142	1145	1152	1158	1160	1156	1154	1154	1153	1159	1170	1148	1149
28	1143	1143	1132	1136	1142	1142	1142	1143	1147	1147	1146	1148	1148	1144	1153	1165	1168	1161	1161	1160	1159	1159	1160	1155	1150
29	1129	1132	1143	1148	1147	1137	1139	1143	1143	1142	1141	1138	1142	1144	1155	1159	1170	1180	1177	1171	1163	1160	1155	1152	1150
Mean	1147	1147	*1145*	1146	1146	1147	1147	1147	1149	1148	1147	1146	1148	1153	1158	1164	*1168*	1167	1164	1164	1163	1160	1157	1153	1153

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

100 ESKDALEMUIR — FEBRUARY

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200
	Horizontal force					Declination			Vertical force							
	Maximum 16,000γ +		Minimum 16,000γ +		Range	Maximum 11° +		Minimum 11° +		Range	Maximum 44,000γ +		Minimum 44,000γ +		Range				
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ				°A.
1 *q*	0 56	577	516	12 22	61	0 38	58·2	48·3	1 34	9·9	16 25	1156	1129	1 8	27	3,1,0,1,2,1,0,0	8	0	82·2
2	6 48	566	485	12 12	81	17 3	62·9	47·4	20 51	15·5	17 34	1198	1134	6 53	64	0,2,2,2,2,3,3,2	16	1	82·3
3 *d*	6 28	573	*449*	13 10	*124*	13 1	62·8	49·1	9 10	13·7	13 19	1201	1147	6 31	54	3,2,4,3,4,3,3,3	25	1	82·3
4	4 31	549	490	7 10	59	12 59	60·1	48·3	22 19	11·8	18 9	1183	1148	9 28	35	2,1,2,3,2,3,2,2	17	1	82·2
5	23 16	562	497	12 0	65	13 28	61·2	42·8	20 18	18·4	16 42	1182	1134	3 20	48	3,3,1,2,2,3,3,3	20	1	82·2
6	22 53	559	483	12 10	76	14 8	59·4	33·1	22 49	*26·3*	15 32	1165	1147	11 30	18	1,0,1,2,2,2,0,4	12	1	82·2
7	20 27	555	492	12 30	63	14 29	58·8	41·4	24 0	17·4	15 22	1166	1145	5 55	21	2,1,2,2,2,3,2,3	17	1	82·2
8	0 22	559	514	12 16	45	13 24	59·3	39·5	22 37	19·8	22 59	1161	1135	3 5	26	3,2,1,2,1,1,0,3	13	1	82·2
9 *q*	0 32	569	520	12 28	49	14 23	57·6	48·3	1 6	9·3	15 20	1158	1135	0 40	23	3,0,1,0,1,0,2,0	7	0	82·2
10	7 11	585	519	11 59	66	15 5	58·3	48·2	9 23	10·1	16 40	1165	1135	7 22	30	2,0,3,2,2,3,0,0	12	1	82·2
11	1 44	572	511	11 56	61	14 0	57·0	47·3	21 26	9·7	15 41	1165	1138	2 4	27	3,1,1,3,1,2,1,2	14	1	82·2
12	24 0	560	498	13 40	62	12 38	57·7	44·7	24 0	13·0	17 50	1153	1134	24 0	19	0,0,2,2,3,1,1,2	11	1	82·1
13	0 1	560	496	11 4	64	13 27	60·8	42·4	0 41	18·4	17 28	1156	1122	2 0	34	3,1,2,2,3,2,1,2	16	1	82·1
14	7 55	556	482	11 53	74	17 30	60·7	42·5	23 16	18·2	19 25	1197	1138	1 0	59	2,1,1,2,2,2,3,2	15	1	82·1
15 *d*	18 34	566	468	19 44	98	13 2	61·5	35·9	22 19	25·6	19 49	1221	1104	24 0	117	3,3,2,3,3,3,4,4	25	2	82·1
16 *d*	0 3	576	470	0 28	106	0 8	59·2	38·5	1 37	20·7	16 55	1191	*1068*	0 22	*123*	4,3,3,3,3,3,3,3	25	1	82·0
17	5 41	560	476	10 9	84	14 0	60·5	39·8	0 1	20·7	17 6	1182	1132	4 39	50	3,3,3,3,3,2,2,2	21	1	82·0
18 *d*	19 48	*600*	484	15 12	116	14 50	60·3	43·0	18 15	17·3	15 47	1186	1131	2 0	55	3,2,3,2,3,3,4,3	23	1	82·0
19	20 53	585	503	11 13	82	14 20	60·2	39·7	22 2	20·5	16 33	1175	1142	4 25	33	1,3,2,1,2,1,3,3	16	1	82·0
20 *q*	18 23	548	501	12 36	47	13 31	57·3	47·9	9 40	9·4	16 35	1162	1147	0 1	15	1,1,0,2,2,2,0,0	8	0	82·0
21 *q*	23 25	552	501	11 9	51	13 0	56·6	47·6	9 11	*9·0*	8 25	1160	1148	11 50	*12*	0,0,0,1,1,0,0,0,	2	0	82·0
22 *q*	1 14	552	507	10 42	45	13 37	58·4	43·8	1 10	14·6	15 0	1159	1143	11 25	16	3,1,1,1,1,1,1,0	9	0	82·0
23 *d*	8 5	564	452	11 12	112	15 31	*67·2*	44·7	9 2	22·5	17 23	*1245*	1131	3 35	114	2,2,2,4,4,4,3,2,	23	1	81·9
24	18 3	564	476	20 43	88	13 32	57·5	*32·4*	21 0	25·1	20 59	1218	1150	11 30	68	2,1,2,1,2,3,4,4	19	1	81·9
25	23 55	548	504	9 55	*44*	8 47	56·2	46·8	8 15	9·4	0 33	1161	1142	13 10	19	0,1,1,2,1,2,1,2	10	0	81·9
26	19 41	576	507	12 18	69	13 38	56·9	47·4	9 31	9·5	16 32	1157	1142	11 59	15	0,0,1,2,2,1,2,1	9	0	81·9
27	20 16	569	516	11 36	53	13 46	61·2	39·8	24 0	21·4	22 12	1175	1134	2 56	41	3,3,1,2,2,2,2,4	19	1	81·9
28	6 50	564	487	1 27	77	13 41	61·0	39·7	0 2	21·3	15 56	1170	1127	2 57	43	4,3,3,2,2,2,1,2	19	1	81·9
29	0 10	572	499	11 44	73	13 52	64·6	42·1	24 0	22·5	17 39	1182	1116	0 39	66	3,1,2,2,3,3,2,3	19	1	82·0
Mean	- -	565	493	- -	72	- -	59·8	43·2	- -	16·6	- -	1178	1134	- -	44	-	-	0·79	82·1

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

101 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — MARCH

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *d*	528	520	509	513	558	528	541	571	533	511	504	492	474	503	504	512	531	536	539	536	540	497	528	506	521
2 *d*	540	526	524	529	531	524	539	542	536	528	491	476	495	523	520	517	524	528	540	528	538	548	531	534	525
3	519	526	527	540	564	539	541	540	529	487	461	472	492	515	516	527	522	528	536	540	540	540	552	540	525
4	540	539	533	532	534	535	543	548	544	520	520	516	514	512	516	525	532	540	541	544	545	545	545	555	534
5	548	544	543	544	546	548	553	554	548	533	528	515	516	512	521	525	536	532	555	547	548	548	549	549	539
6	548	547	548	544	547	549	552	552	544	527	516	523	508	516	532	536	516	536	540	534	548	540	538	564	538
7	536	539	540	538	540	543	545	545	544	535	516	516	523	528	531	527	532	531	540	545	547	548	548	548	537
8	548	546	545	545	548	549	548	549	540	525	513	512	524	513	530	532	533	528	521	536	532	526	540	544	534
9	544	544	543	544	545	547	549	552	534	524	513	512	520	524	538	540	528	531	543	548	566	546	546	547	539
10	544	542	544	546	548	554	553	545	532	514	501	504	519	526	536	537	544	529	540	544	568	548	544	546	538
11	545	545	543	544	547	548	549	548	541	528	515	510	508	527	541	544	542	546	548	553	554	560	560	520	540
12	524	535	534	554	552	559	544	540	552	535	519	508	510	501	501	509	514	542	546	548	544	542	544	567	534
13 *d*	540	556	539	532	530	540	544	538	532	519	470	468	488	511	520	529	523	520	524	519	516	514	508	512	521
14 *d*	544	537	492	511	527	527	524	516	516	500	497	488	487	516	516	536	536	549	547	556	533	518	531	520	522
15 *d*	509	484	480	508	529	409	300	356	302	308	355	401	483	555	532	532	615	605	580	473	482	499	497	482	*470*
16	491	495	511	501	498	496	495	492	490	476	461	458	461	472	484	496	503	507	517	528	532	521	534	522	498
17	524	508	516	520	519	520	521	511	500	480	464	470	480	487	498	513	524	516	532	532	531	530	528	527	510
18 *q*	524	516	516	522	531	534	535	525	517	508	502	498	504	503	515	536	529	532	539	540	542	536	535	536	524
19	538	545	524	528	531	544	536	517	518	516	512	497	500	508	516	528	533	540	533	543	541	542	544	540	528
20	541	540	539	540	540	542	544	543	532	524	518	512	501	504	510	516	531	528	541	546	550	544	548	544	532
21	545	541	538	540	536	535	536	537	540	537	511	508	512	520	523	538	538	541	552	551	547	552	542	540	536
22	550	541	544	540	542	543	543	539	532	520	516	507	504	507	521	524	536	542	546	549	570	549	546	548	536
23 *q*	548	547	540	542	541	546	547	544	533	522	510	502	508	516	528	535	540	544	547	552	556	552	553	548	538
24 *q*	548	552	549	549	546	548	546	539	532	520	513	513	524	520	524	528	535	542	547	550	552	552	552	552	539
25 *q*	552	551	548	548	549	551	553	550	537	523	509	504	512	519	533	546	553	553	560	560	564	561	558	556	544
26	555	553	552	552	552	553	552	547	537	528	520	512	519	548	554	525	524	552	557	557	555	536	524	526	541
27	552	540	537	541	548	548	528	540	532	514	504	493	511	532	548	560	548	541	548	552	552	553	545	556	538
28	552	544	538	543	548	549	546	540	527	519	508	504	508	525	538	542	535	540	544	548	548	546	544	544	537
29 *q*	543	541	541	544	544	544	544	541	535	526	520	519	523	526	538	538	539	548	556	548	548	548	538	539	539
30	541	543	549	544	550	549	549	538	533	516	508	501	515	522	535	536	535	553	553	557	552	528	537	548	537
31	548	560	538	531	546	559	560	548	534	523	510	510	516	533	544	552	556	558	563	563	559	564	571	568	*546*
Mean	539	537	533	536	541	537	534	534	524	511	500	*497*	505	517	525	530	535	539	544	543	*545*	540	541	540	530

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

102 ESKDALEMUIR (D) — 11° + — MARCH

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 *d*	42·5	48·5	44·1	50·9	46·7	50·6	55·4	53·9	54·8	53·0	54·0	55·7	56·5	58·5	58·6	53·8	53·3	53·4	51·9	45·5	45·3	45·9	40·1	47·5	50·8
2 *d*	48·6	49·5	50·1	49·5	51·2	53·9	52·2	51·2	49·3	49·4	50·2	51·8	53·6	55·4	55·8	54·7	52·1	50·8	51·3	48·4	43·0	47·9	49·2	49·2	50·8
3	44·1	49·3	49·7	50·2	55·8	54·9	53·0	50·2	49·4	50·8	53·0	55·4	56·9	56·3	56·1	54·4	53·0	49·4	52·4	52·4	52·1	51·1	47·7	51·1	52·0
4	52·2	49·6	49·6	49·2	51·1	49·4	50·3	50·2	49·9	48·6	49·7	52·1	54·6	55·7	55·4	55·1	53·3	52·6	52·2	52·0	51·8	51·6	50·4	49·2	51·5
5	49·3	50·8	50·9	50·0	50·3	50·3	50·4	50·1	48·7	49·2	50·1	53·0	55·6	56·5	56·5	54·6	51·6	49·9	47·5	47·3	48·2	49·1	51·4	51·8	51·0
6	51·0	50·9	50·7	50·7	50·0	50·1	50·7	50·2	49·7	50·1	52·1	54·4	56·4	57·4	57·5	57·6	51·8	44·8	50·3	51·0	46·6	49·7	49·5	51·2	51·4
7	47·3	50·1	50·6	50·0	51·3	50·6	50·1	50·1	49·3	49·4	52·0	55·8	57·5	58·7	57·8	55·7	51·2	52·4	51·9	51·5	51·6	51·8	51·4	51·1	52·1
8	50·6	50·3	50·2	50·2	50·2	50·0	50·3	49·3	47·4	48·2	50·2	53·8	59·2	58·5	59·4	56·6	57·5	54·7	51·1	51·2	49·6	46·3	50·1	50·5	51·9
9	51·0	50·9	50·3	50·3	50·2	50·2	50·0	49·4	50·1	50·7	53·2	56·5	58·5	58·3	57·4	55·1	52·1	50·6	51·8	51·1	46·7	51·1	51·8	50·2	52·0
10	49·5	51·1	50·8	50·4	50·6	50·2	49·1	48·4	46·8	47·1	49·4	54·8	59·1	59·8	58·4	55·2	54·8	52·0	47·6	45·8	45·5	46·8	50·2	51·2	51·0
11	51·1	50·5	49·7	49·9	50·0	50·0	49·4	48·7	46·7	46·7	48·7	53·7	58·2	59·8	59·0	56·5	53·5	53·0	52·8	52·1	52·1	47·4	38·4	40·3	50·8
12	40·7	49·5	50·7	51·8	44·7	47·3	53·0	53·8	48·0	47·9	48·9	53·0	60·1	61·0	61·3	60·9	57·6	55·1	54·0	53·4	52·3	52·1	51·6	52·1	52·5
13 *d*	51·9	45·5	38·5	38·5	47·2	48·5	48·4	48·2	49·5	50·2	53·0	59·7	62·9	67·6	62·4	60·7	56·0	51·9	45·6	50·1	46·7	56·2	48·9	49·3	51·6
14 *d*	48·5	43·3	44·9	54·5	52·9	55·0	48·4	47·6	45·6	47·4	49·1	55·0	57·8	59·3	59·6	57·7	51·8	51·1	46·3	48·4	48·9	44·6	42·8	47·1	50·3
15 *d*	36·8	45·3	38·5	47·9	60·2	62·7	72·5	50·1	60·3	52·8	50·1	56·6	60·0	58·5	56·3	62·8	60·3	53·0	48·7	53·2	47·0	49·6	48·8	45·5	*53·2*
16	42·4	47·8	44·0	47·4	46·8	47·9	48·7	46·7	46·3	46·8	48·3	51·6	55·3	57·4	57·4	56·0	54·3	52·2	50·9	50·9	48·6	48·6	49·8	50·0	*49·8*
17	49·3	47·9	48·4	48·7	46·4	45·8	46·2	46·6	47·1	48·8	51·3	54·8	56·5	56·4	56·5	55·4	53·8	49·7	51·2	51·2	50·8	51·0	50·3	49·3	50·5
18 *q*	47·8	47·9	49·1	50·3	48·5	48·3	48·3	47·4	46·2	46·7	48·4	51·2	55·9	56·6	56·6	55·7	53·2	51·3	51·1	52·2	51·8	49·6	49·4	50·3	50·6
19	49·4	47·4	46·4	46·8	48·7	49·0	49·4	50·3	51·8	49·2	49·6	52·2	56·5	58·3	57·2	54·9	52·9	52·0	51·8	50·2	50·9	51·1	51·2	50·4	51·1
20	50·3	49·7	49·8	49·9	50·0	49·8	49·1	47·4	47·3	47·6	50·3	54·4	59·3	60·8	60·1	57·5	55·7	53·2	52·3	51·8	50·4	47·0	50·0	50·1	51·8
21	51·7	50·3	51·8	50·4	49·2	49·3	50·4	47·6	44·8	48·8	50·3	53·6	58·3	60·3	59·4	57·5	55·1	53·9	53·3	52·1	50·1	49·5	48·9	50·6	52·0
22	50·4	49·9	50·2	50·1	51·0	49·3	48·2	47·4	45·9	46·5	48·5	52·2	55·8	56·7	57·2	56·0	52·1	52·6	52·5	50·1	46·5	48·4	50·4	50·7	50·8
23 *q*	53·1	52·2	52·4	50·6	49·7	49·4	49·0	47·3	45·9	46·7	48·9	52·0	56·3	57·5	57·4	56·0	54·4	53·0	52·6	52·2	52·0	51·8	51·2	50·8	51·8
24 *q*	51·0	50·4	50·0	49·5	49·4	50·0	49·5	47·9	46·4	47·1	48·9	51·8	55·5	57·2	57·4	56·4	55·6	54·5	53·4	52·1	52·0	51·7	51·3	51·1	51·7
25 *q*	51·2	51·2	51·0	50·9	50·3	50·0	49·4	47·5	46·3	46·5	48·8	52·1	56·3	58·3	59·2	58·4	56·5	54·8	53·7	52·8	52·1	51·6	50·9	50·9	52·1
26	50·4	50·2	50·9	50·7	50·9	50·3	49·3	46·9	45·5	46·4	48·7	53·2	57·5	61·9	62·2	59·7	54·8	54·3	53·3	51·5	52·0	42·5	46·1	45·6	51·5
27	52·1	47·5	47·9	48·8	47·8	48·4	50·3	47·0	45·8	47·1	50·0	53·1	57·9	59·2	58·8	57·5	54·7	52·8	52·1	51·9	51·2	50·4	50·5	51·2	51·4
28	48·4	45·8	47·5	49·4	49·2	48·9	47·6	44·8	44·6	46·8	51·2	56·5	58·8	60·2	59·5	56·9	54·3	52·0	51·2	51·2	51·1	50·9	50·2	49·2	51·1
29 *q*	47·3	47·5	48·5	48·9	48·7	48·9	48·4	45·9	44·7	45·7	47·5	51·8	56·0	57·5	57·8	56·6	54·6	52·9	52·0	49·2	49·5	49·5	44·9	46·2	50·0
30	48·4	46·7	44·5	46·4	46·4	45·8	45·7	44·8	44·3	45·3	49·4	54·4	57·4	58·5	59·0	57·3	54·8	54·0	53·0	52·5	48·5	45·7	49·3	49·5	50·1
31	50·4	47·9	43·2	44·6	47·8	48·4	46·6	44·9	44·0	45·7	48·8	52·7	55·5	57·9	58·4	57·2	56·4	55·1	53·8	52·6	50·7	51·1	50·6	49·7	50·6
Mean	48·7	48·9	48·2	49·3	49·8	50·1	50·3	48·5	*47·8*	48·2	50·1	53·8	57·3	*58·6*	58·3	56·8	54·3	52·3	51·4	50·9	49·5	49·4	48·9	49·5	51·3

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

103 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — MARCH

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *d*	1134	1115	1101	1109	1120	1107	1108	1118	1132	1142	1143	1148	1154	1151	1164	1180	1176	1172	1168	1175	1170	1136	1107	1125	*1140*
2 *d*	1104	1121	1137	1147	1147	1141	1143	1147	1153	1153	1154	1160	1162	1159	1165	1166	1171	1170	1169	1179	1171	1151	1136	1103	1150
3	1120	1137	1148	1149	1133	1120	1121	1137	1144	1153	1159	1160	1159	1162	1165	1175	1178	1175	1165	1160	1158	1157	1155	1150	1152
4	1138	1147	1151	1151	1150	1148	1148	1148	1150	1150	1148	1142	1143	1147	1152	1155	1160	1159	1160	1158	1159	1155	1157	1153	1151
5	1148	1148	1145	1148	1149	1148	1149	1150	1151	1150	1143	1138	1137	1141	1144	1154	1165	1169	1165	1159	1157	1155	1153	1152	1151
6	1152	1152	1151	1150	1148	1148	1148	1147	1147	1174	1143	1139	1143	1148	1150	1169	1178	1188	1176	1175	1166	1156	1155	1142	1156
7	1142	1147	1149	1150	1148	1148	1148	1150	1152	1148	1144	1141	1140	1146	1155	1165	1176	1170	1163	1160	1159	1154	1153	1153	1153
8	1153	1153	1153	1151	1151	1153	1153	1151	1151	1147	1143	1138	1134	1142	1150	1161	1168	1176	1179	1171	1170	1167	1160	1155	1155
9	1155	1155	1156	1155	1153	1153	1152	1152	1154	1148	1143	1141	1142	1146	1150	1158	1165	1166	1161	1160	1154	1151	1153	1153	1153
10	1148	1151	1151	1150	1150	1148	1148	1151	1152	1150	1143	1134	1137	1142	1153	1164	1170	1170	1170	1170	1160	1145	1147	1148	1152
11	1150	1152	1153	1151	1150	1150	1148	1150	1153	1144	1138	1134	1137	1139	1148	1155	1155	1150	1150	1150	1150	1151	1151	1157	1149
12	1158	1152	1147	1126	1117	1124	1127	1125	1125	1131	1129	1126	1129	1144	1153	1160	1169	1166	1159	1160	1164	1161	1160	1143	1144
13 *d*	1130	1112	1100	1109	1125	1134	1142	1144	1144	1136	1134	1138	1159	1173	1198	1201	1213	1242	1240	1210	1199	1130	1131	1114	1157
14 *d*	1087	1082	1097	1104	1080	1076	1098	1125	1145	1149	1151	1146	1144	1156	1172	1193	1215	1211	1216	1194	1157	1161	1148	1148	1144
15 *d*	1133	1086	1071	1059	957	930	944	1022	1062	1080	1134	1171	1182	1255	1255	1266	1379	1386	1359	1193	1211	1182	1165	1146	1151
16	1150	1164	1170	1171	1171	1172	1171	1175	1177	1175	1171	1164	1160	1160	1160	1165	1170	1173	1173	1171	1171	1170	1161	1159	*1168*
17	1159	1157	1154	1149	1150	1154	1156	1159	1157	1155	1154	1151	1151	1154	1160	1170	1183	1187	1178	1173	1171	1165	1165	1165	1162
18 *q*	1162	1156	1157	1156	1159	1160	1161	1165	1169	1165	1160	1153	1152	1158	1159	1164	1171	1171	1171	1167	1166	1166	1165	1161	1162
19	1154	1142	1146	1153	1155	1156	1159	1160	1155	1153	1149	1145	1143	1147	1153	1157	1164	1166	1168	1167	1166	1164	1161	1160	1156
20	1160	1159	1159	1159	1159	1158	1160	1164	1165	1159	1155	1152	1152	1159	1173	1183	1188	1180	1170	1170	1165	1165	1160	1160	1164
21	1149	1153	1154	1153	1155	1156	1159	1159	1157	1147	1147	1142	1143	1148	1155	1161	1163	1164	1165	1165	1170	1166	1165	1163	1157
22	1156	1157	1155	1155	1154	1154	1154	1155	1155	1154	1152	1147	1144	1150	1157	1162	1170	1166	1160	1160	1154	1148	1150	1152	1155
23 *q*	1147	1146	1146	1148	1153	1154	1154	1157	1157	1152	1148	1144	1143	1146	1150	1153	1156	1156	1153	1153	1154	1156	1155	1155	1151
24 *q*	1155	1154	1154	1153	1153	1151	1153	1154	1155	1150	1146	1138	1135	1141	1148	1153	1153	1152	1152	1152	1153	1152	1153	1153	1151
25 *q*	1153	1153	1153	1153	1153	1152	1152	1154	1153	1150	1146	1141	1137	1139	1144	1148	1148	1148	1148	1149	1149	1150	1152	1153	1149
26	1153	1153	1153	1153	1152	1151	1152	1154	1150	1144	1137	1132	1131	1130	1146	1162	1162	1155	1154	1160	1164	1165	1160	1150	1151
27	1130	1128	1145	1152	1143	1154	1154	1154	1150	1146	1142	1139	1139	1143	1150	1163	1165	1160	1157	1156	1155	1154	1156	1148	1149
28	1140	1137	1144	1148	1151	1153	1155	1156	1154	1144	1142	1139	1138	1143	1153	1169	1175	1174	1167	1164	1160	1157	1157	1156	1153
29 *q*	1154	1153	1152	1149	1148	1151	1155	1159	1155	1144	1137	1132	1132	1137	1145	1153	1154	1154	1159	1166	1165	1160	1161	1159	1151
30	1155	1154	1150	1148	1147	1144	1146	1148	1148	1142	1133	1132	1132	1139	1148	1153	1156	1156	1161	1159	1168	1172	1170	1164	1151
31	1160	1152	1143	1148	1147	1148	1149	1152	1152	1147	1143	1137	1133	1134	1138	1142	1143	1144	1147	1149	1154	1151	1149	1148	1146
Mean	1145	1143	1143	1144	1140	*1139*	1141	1147	1149	1148	1145	1143	1144	1151	1159	1167	1176	*1177*	1174	1166	1164	1157	1154	1150	1153

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

104 ESKDALEMUIR — MARCH

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination			Vertical force							
	Maximum 16,000γ +		Minimum 16,000γ +		Range	Maximum 11° +	Minimum 11° +	Range	Maximum 44,000γ +		Minimum 44,000γ +		Range			
	h. m.	γ	γ	h. m.	γ	h. m. ′	′ h. m.	′	h. m.	γ	γ	h. m.	γ				°A.
1 *d*	7 29	600	451	12 2	149	6 41 63·9	33·5 22 18	30·4	15 40	1182	1087	22 0	95	4,4,4,4,3,3,3,5	30	1	82·0
2 *d*	21 23	568	432	11 12	136	14 1 58·8	38·6 20 19	20·2	20 0	1182	1098	0 28	84	3,3,3,4,3,2,4,4	26	1	82·0
3	4 49	596	458	10 48	138	6 8 60·4	42·7 0 15	17·7	16 41	1178	1109	0 1	69	3,4,3,3,3,3,1,3	23	1	82·0
4	23 23	568	493	13 52	75	13 27 57·6	47·9 9 36	*9·7*	17 5	1164	1135	0 11	29	3,2,2,2,3,2,1,2	17	1	82·0
5	19 35	585	508	13 42	77	13 52 57·8	43·9 18 52	13·9	17 49	1172	1137	12 26	35	2,1,2,2,2,2,3,2	16	1	82·0
6	23 29	578	484	17 0	94	15 0 60·2	42·0 17 9	18·2	17 29	1195	1132	23 52	63	1,0,2,2,3,4,3,3	18	1	82·0
7	4 50	556	510	10 50	46	13 9 59·8	45·9 0 25	13·9	16 30	1178	1137	0 1	41	2,2,2,2,2,2,1,0	13	1	82·0
8	5 30	552	500	13 18	52	14 32 61·3	45·6 21 20	15·7	18 5	1182	1130	12 20	52	0,0,1,2,3,2,2,2	12	1	82·0
9	20 18	588	497	10 55	91	12 19 59·7	44·9 20 11	14·8	17 18	1170	1139	11 50	31	0,0,2,2,1,3,3,2	13	1	82·0
10	20 51	613	499	10 43	114	12 35 60·7	38·5 20 44	22·2	19 11	1171	1133	11 24	38	1,1,1,1,1,3,4,3	15	1	82·0
11	21 50	596	490	23 53	106	12 59 60·8	29·1 23 55	31·7	24 0	1166	1133	11 32	33	0,0,1,1,2,1,0,5	10	1	82·1
12	23 20	580	471	13 7	109	13 47 65·5	29·2 0 1	36·3	16 50	1170	1113	4 16	57	5,3,4,3,3,3,1,3	25	1	82·1
13 *d*	21 39	599	436	21 29	163	13 17 70·3	36·6 2 59	33·7	17 54	1278	1094	2 10	184	4,4,3,4,3,4,4,5	31	2	82·1
14 *d*	19 38	632	467	9 41	165	13 41 62·1	29·9 22 0	32·2	18 16	1225	1069	5 6	156	4,3,4,3,3,4,5,4	30	2	82·1
15 *d*	18 45	*834*	*176*	5 11	*658*	6 34 *89·8*	*24·9* 19 0	*64·9*	18 42	*1427*	*912*	5 18	*515*	4,7,6,6,5,6,7,5	46	2	82·1
16	22 22	545	453	11 57	92	13 59 57·6	38·9 0 24	18·7	8 20	1177	1141	0 1	36	3,2,2,2,1,1,2,2	15	1	82·1
17	16 18	538	448	10 22	90	12 43 58·0	45·7 8 59	12·3	17 9	1189	1146	3 50	43	2,2,2,3,2,3,1,1	16	1	82·1
18 *q*	20 36	544	492	11 20	52	12 59 58·2	45·5 8 28	12·7	18 5	1173	1149	12 0	24	2,2,1,1,1,2,1,1	11	0	82·1
19	1 25	554	492	11 32	62	13 29 58·5	44·6 1 53	13·9	19 9	1170	1137	1 43	33	3,2,3,2,0,1,1,1	13	0	82·1
20	20 42	559	464	12 30	95	12 51 62·7	43·5 21 10	19·2	6 35	1190	1149	12 49	41	0,0,1,2,3,3,2,3	14	1	82·2
21	21 53	561	496	11 10	65	13 12 62·2	41·0 8 22	21·2	20 30	1171	1141	12 6	30	2,1,3,3,3,1,2,2	17	1	82·1
22	20 42	580	486	12 15	94	13 31 59·4	45·3 8 11	14·1	16 20	1171	1142	12 25	29	2,1,2,3,3,2,3,2	18	1	82·2
23 *q*	22 32	564	500	11 22	64	13 54 58·1	45·3 9 0	12·8	8 10	1159	1142	12 10	*17*	2,1,1,2,1,0,1,2	10	0	82·2
24 *q*	1 10	558	508	11 28	50	14 4 58·8	45·3 8 42	13·5	8 22	1157	1132	12 28	25	1,1,1,0,3,1,0,0	7	0	82·2
25 *q*	20 43	569	501	11 46	68	14 10 59·7	46·1 8 33	13·6	7 20	1155	1136	12 30	19	0,0,0,1,2,2,1,2	8	0	82·2
26	18 0	568	503	11 28	65	14 53 63·9	40·4 21 25	23·5	21 25	1170	1126	13 10	44	1,0,1,2,3,3,2,3	15	1	82·2
27	0 54	570	484	11 15	86	14 23 60·3	45·1 8 48	15·2	16 0	1169	1120	1 9	49	3,2,2,2,3,3,1,2	18	1	82·2
28	0 20	556	500	12 5	56	14 5 60·7	42·7 8 11	18·0	17 0	1176	1137	1 20	39	2,1,2,2,2,2,0,1	12	0	82·2
29 *q*	18 43	560	515	11 0	*45*	14 20 58·4	44·0 8 30	14·4	19 52	1170	1130	11 40	40	1,0,1,1,2,2,2,3	12	0	82·2
30	18 9	576	496	11 1	80	13 46 59·6	39·7 21 0	19·9	21 0	1176	1131	11 50	45	2,2,2,2,1,3,4,3	19	1	82·2
31	22 15	584	503	10 44	81	13 59 59·6	41·9 2 42	17·7	0 1	1160	1131	12 40	29	3,3,2,1,2,2,2,3	18	1	82·2
Mean	– –	582	475	– –	107	– – 61·4	40·9 – –	20·5	– –	1186	1121	– –	65	–	–	0·87	82·1

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

105 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — APRIL

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *d*	585	540	544	560	562	561	560	536	534	514	515	512	510	518	536	539	543	550	552	555	544	548	564	556	543
2	539	538	541	541	544	552	560	549	540	535	496	515	524	534	532	537	547	553	555	556	556	560	552	555	542
3	548	537	540	562	550	542	546	544	532	521	492	496	508	524	533	544	551	547	555	554	556	552	552	553	539
4	552	552	546	547	548	560	556	552	524	516	500	498	504	519	528	539	543	558	552	554	553	554	554	552	540
5 *q*	550	548	547	550	544	548	548	544	529	512	506	506	513	523	536	541	544	552	552	554	556	553	556	554	540
6 *d*	552	551	550	555	568	572	571	568	544	523	510	513	519	524	531	534	556	612	547	560	547	556	563	560	549
7	558	552	561	552	553	559	556	548	528	504	499	499	511	518	532	544	548	547	554	560	560	539	528	544	540
8 *q*	553	539	537	538	541	544	544	538	520	502	492	488	496	508	522	529	536	541	548	548	548	550	548	551	532
9 *q*	549	548	549	552	553	555	552	543	527	508	494	492	497	511	524	542	552	556	560	570	552	548	548	558	539
10	564	557	547	541	547	552	552	544	532	513	499	499	515	528	538	544	564	583	557	552	552	553	552	561	544
11	548	544	545	544	541	553	551	542	528	510	498	494	500	535	527	534	547	546	556	564	560	562	564	564	540
12	561	572	555	549	558	560	563	555	536	515	492	500	499	510	544	562	580	568	561	552	544	549	547	543	545
13	535	540	539	549	554	544	548	548	534	520	504	492	493	514	527	535	546	557	579	576	562	563	544	560	540
14	560	564	540	548	542	544	544	536	528	509	492	488	483	499	516	526	555	539	556	557	559	560	560	559	536
15	555	556	554	563	564	565	554	551	548	528	504	496	504	512	541	584	603	580	527	528	536	540	542	544	545
16 *q*	544	544	541	540	540	546	551	548	541	524	504	493	496	499	518	528	544	555	557	565	562	561	561	566	539
17	564	562	559	544	544	544	544	543	530	517	506	498	498	503	520	536	545	558	564	557	562	562	564	564	541
18	560	553	552	550	550	551	549	544	528	522	496	492	491	507	512	531	546	556	564	567	565	568	569	563	541
19 *q*	560	560	555	554	554	552	549	539	527	517	513	513	516	516	516	536	544	549	559	567	568	572	567	572	545
20	569	564	564	567	564	567	564	556	539	524	512	515	508	529	539	547	554	563	567	564	568	564	563	549	*551*
21 *d*	465	451	507	523	528	528	528	516	512	504	492	484	490	504	518	540	540	548	553	557	556	551	547	544	520
22 *d*	552	528	523	567	525	488	532	497	460	432	437	476	495	507	486	508	539	527	544	552	548	532	528	522	*513*
23	528	524	515	514	520	518	508	498	488	484	484	484	487	491	499	508	528	536	541	550	549	544	545	547	516
24	548	540	527	526	532	524	532	532	517	496	488	487	502	516	528	538	544	553	564	564	562	562	571	573	534
25	551	546	544	546	529	540	542	539	523	512	509	508	512	504	516	530	541	555	585	548	548	547	547	556	537
26	548	541	543	543	544	544	536	521	505	472	456	466	492	521	520	569	588	550	546	556	548	548	545	548	531
27	549	542	545	541	550	536	529	516	500	488	495	496	510	523	536	551	556	572	560	561	572	552	556	558	537
28	548	546	547	536	537	551	546	540	528	511	509	514	516	534	550	561	543	560	562	568	568	556	556	560	544
29 *d*	552	548	544	545	541	552	539	511	553	535	520	516	519	522	527	555	556	564	557	555	558	556	572	558	544
30	552	558	550	547	552	553	551	540	520	508	499	501	504	520	539	545	556	563	574	576	564	563	563	553	544
Mean	550	545	544	547	546	547	547	538	525	509	*497*	498	504	516	526	541	551	557	557	*558*	556	554	554	555	538

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

106 ESKDALEMUIR (D) — 11° + — APRIL

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 *d*	46·8	40·1	44·0	46·6	54·1	50·9	49·8	47·7	48·5	49·4	50·2	52·8	54·3	57·4	57·5	54·6	53·3	51·2	49·2	50·2	48·9	50·9	47·4	50·4	50·3
2	47·9	47·8	49·9	49·7	52·1	57·5	54·9	46·0	44·3	44·9	48·6	51·8	55·3	57·4	55·7	53·8	52·0	51·4	51·9	52·1	49·3	50·4	48·2	50·6	51·0
3	50·1	50·2	49·4	50·2	48·5	49·3	48·5	46·6	44·3	45·0	49·4	54·9	57·5	58·4	57·5	55·5	53·3	49·2	50·6	51·9	51·8	51·5	51·3	50·9	51·1
4	50·7	50·3	50·0	49·5	50·2	52·1	52·9	51·2	49·6	48·8	52·1	56·1	58·9	59·5	58·2	55·0	51·8	48·9	50·6	51·3	51·3	51·4	50·9	50·7	52·2
5 *q*	51·0	50·7	50·2	50·5	50·6	47·9	46·0	44·8	44·1	45·4	48·8	53·3	56·7	58·6	57·5	54·7	52·1	51·3	51·1	51·2	51·3	51·2	51·3	51·3	50·9
6 *d*	51·0	51·2	50·9	50·5	50·3	50·1	48·2	45·6	43·8	44·7	48·2	52·1	56·5	59·3	59·3	56·7	55·7	59·6	51·8	47·2	44·9	51·3	51·0	50·6	51·3
7	50·2	49·3	48·8	47·7	47·8	48·5	47·5	44·3	43·1	43·9	45·7	51·2	56·6	58·3	57·9	55·9	54·8	53·6	52·4	50·3	51·3	48·5	47·9	49·7	50·2
8 *q*	49·3	50·0	50·0	49·5	49·4	49·2	47·9	45·5	44·0	45·3	47·6	52·2	57·4	59·2	58·0	55·7	54·2	52·6	51·1	50·9	51·1	50·9	50·8	50·9	50·9
9 *q*	50·8	50·4	50·5	50·7	50·3	49·6	47·5	44·8	43·0	43·5	45·7	49·3	53·9	58·3	58·5	57·6	55·7	54·1	53·0	51·1	50·3	50·2	50·6	51·2	50·9
10	49·4	48·4	47·1	47·3	47·8	48·1	47·6	44·9	43·6	44·8	46·1	49·9	55·7	60·0	60·6	59·1	56·7	52·5	52·3	51·6	52·0	51·3	50·3	46·1	50·5
11	46·5	47·3	47·7	45·3	47·4	46·0	44·8	43·8	42·1	42·5	45·3	50·1	54·8	57·6	57·9	55·9	55·0	53·2	52·0	48·8	49·5	51·0	51·1	51·0	49·4
12	50·9	49·4	45·7	46·5	46·8	46·5	46·6	44·7	44·6	46·6	49·5	53·6	58·4	59·2	59·4	57·8	53·9	52·5	52·2	52·8	53·1	52·8	50·4	49·1	51·0
13	49·1	49·9	50·3	53·0	48·6	45·9	43·9	43·1	42·2	43·0	46·7	51·9	56·4	59·1	58·9	57·2	55·9	53·5	51·1	47·4	46·2	47·9	46·0	49·8	49·9
14	48·7	46·7	44·3	48·4	45·6	44·5	43·6	42·8	42·8	44·1	46·6	51·4	55·4	56·8	56·6	55·3	54·6	52·2	52·2	52·1	52·2	51·7	49·0	49·2	49·5
15	50·7	51·0	52·3	53·1	50·6	48·6	47·0	48·4	48·7	47·0	48·6	53·7	60·1	61·2	60·9	60·1	59·3	56·5	51·1	52·9	53·5	51·1	50·3	50·6	*52·8*
16 *q*	51·1	50·9	50·3	50·2	48·9	46·6	44·2	42·3	42·8	43·0	45·3	48·6	53·9	55·7	56·0	55·3	53·3	51·0	51·1	52·0	51·5	52·2	51·8	49·6	49·9
17	49·8	50·2	48·5	47·8	47·0	45·8	43·4	43·0	42·3	43·0	45·6	49·3	53·0	54·9	54·6	54·0	52·7	51·5	51·0	50·2	51·0	51·5	51·5	50·5	49·3
18	50·1	49·4	49·0	48·3	48·0	47·6	46·4	44·8	47·5	47·0	48·7	52·4	54·7	57·2	56·4	54·4	52·9	51·6	51·0	51·3	51·6	52·0	52·0	51·4	50·7
19 *q*	50·7	50·1	49·8	49·1	47·8	46·7	44·5	42·1	41·7	43·9	46·8	52·8	57·3	58·4	56·8	55·4	52·9	51·1	50·4	50·9	51·8	52·7	52·0	51·4	50·3
20	51·1	45·8	48·3	49·1	49·0	48·6	44·9	45·3	44·3	46·8	50·9	56·1	57·5	59·1	57·9	56·0	54·5	52·1	50·0	50·4	51·1	50·2	46·5	39·9	50·2
21 *d*	26·3	22·5	40·4	45·6	42·5	42·7	42·6	41·5	40·4	45·7	48·1	50·8	54·7	56·4	56·2	54·7	53·3	51·6	50·7	49·9	50·0	51·0	50·9	49·8	*46·6*
22 *d*	47·6	39·4	35·9	34·5	50·0	55·6	42·8	44·9	46·1	48·7	56·4	61·2	64·2	63·7	61·3	60·4	57·5	52·4	48·3	50·7	48·2	50·0	51·0	49·9	50·9
23	46·9	45·8	48·2	47·0	47·1	46·4	44·5	42·3	41·2	43·8	48·4	53·1	58·0	58·4	57·4	54·7	53·1	52·0	51·0	51·1	51·1	50·5	50·2	50·9	49·7
24	51·1	50·4	49·4	49·0	46·3	44·8	45·0	44·0	44·0	44·8	47·9	52·7	57·8	59·2	58·4	55·7	53·8	52·1	52·1	51·7	51·7	52·0	51·0	41·7	50·3
25	46·7	47·5	51·0	47·7	47·5	45·4	42·8	42·0	40·3	43·7	47·1	51·0	55·7	56·5	56·7	55·6	53·7	51·1	51·4	45·1	46·2	49·6	51·2	51·2	49·0
26	50·7	49·4	48·9	47·7	47·3	45·8	43·9	42·3	41·1	42·7	48·2	54·1	56·6	60·5	59·9	58·2	54·8	52·3	51·7	52·0	50·5	49·4	49·4	51·1	50·4
27	52·6	51·5	49·9	48·0	44·9	43·9	42·6	41·3	42·5	45·8	48·7	52·1	55·6	57·5	55·5	54·8	53·1	52·3	50·3	48·4	49·5	51·9	52·2	51·4	49·8
28	50·4	49·9	48·7	50·3	50·4	47·5	44·8	43·3	43·5	45·0	48·3	52·3	55·7	57·3	55·6	54·2	52·6	52·1	52·7	53·0	52·2	48·9	49·2	48·2	50·3
29 *d*	46·8	49·0	48·4	48·0	48·4	46·8	46·8	47·6	50·4	48·6	50·2	53·3	57·3	59·5	58·3	57·6	56·0	54·5	52·4	52·0	51·5	48·4	47·7	48·9	51·2
30	50·4	51·2	49·0	47·3	48·2	47·2	44·9	44·8	46·3	50·2	51·9	53·1	55·0	55·4	54·3	52·4	51·4	51·0	50·4	48·5	51·6	52·2	51·7	49·1	50·3
Mean	48·9	47·9	48·2	48·3	48·5	47·9	46·0	44·5	*44·1*	45·4	48·4	52·6	56·5	*58·3*	57·7	55·9	54·1	52·4	51·2	50·6	50·5	50·8	50·2	49·6	50·4

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

107 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — APRIL

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *d*	1126	1122	1124	1126	1120	1114	1127	1137	1138	1138	1137	1133	1134	1139	1150	1156	1162	1166	1167	1166	1165	1156	1148	1132	1141
2	1141	1144	1144	1146	1141	1128	1124	1138	1144	1137	1136	1133	1132	1137	1146	1155	1156	1155	1154	1155	1155	1151	1154	1143	1144
3	1132	1115	1110	1114	1120	1133	1144	1149	1149	1141	1138	1134	1133	1138	1148	1153	1160	1170	1163	1157	1155	1154	1154	1154	1142
4	1151	1150	1151	1151	1152	1149	1153	1154	1155	1146	1143	1142	1143	1147	1154	1159	1166	1171	1166	1161	1158	1155	1154	1154	1154
5 *q*	1154	1154	1154	1153	1152	1154	1160	1161	1159	1149	1146	1140	1137	1141	1150	1155	1156	1155	1154	1153	1152	1152	1151	1151	1152
6 *d*	1152	1153	1151	1150	1147	1148	1150	1149	1149	1141	1133	1128	1126	1132	1144	1150	1148	1144	1166	1177	1167	1157	1154	1154	1149
7	1154	1155	1151	1151	1151	1150	1154	1159	1161	1155	1148	1137	1134	1137	1144	1149	1156	1160	1159	1162	1155	1160	1155	1148	1152
8 *q*	1141	1148	1154	1154	1153	1149	1150	1150	1149	1144	1141	1133	1132	1134	1136	1141	1145	1149	1154	1154	1154	1153	1153	1153	1147
9 *q*	1151	1153	1154	1152	1151	1150	1151	1153	1149	1145	1139	1127	1125	1128	1138	1141	1146	1154	1161	1159	1160	1159	1156	1153	1148
10	1140	1141	1143	1147	1148	1149	1153	1155	1152	1142	1136	1128	1126	1127	1138	1148	1157	1173	1172	1166	1161	1158	1158	1149	1149
11	1139	1143	1149	1151	1148	1142	1145	1149	1149	1148	1145	1136	1126	1129	1141	1147	1148	1154	1156	1159	1156	1153	1150	1150	1146
12	1149	1144	1139	1143	1144	1144	1147	1150	1153	1144	1139	1132	1133	1141	1152	1167	1188	1194	1188	1177	1168	1159	1154	1150	1154
13	1144	1137	1137	1130	1118	1132	1142	1145	1147	1144	1141	1132	1131	1131	1137	1143	1149	1155	1165	1172	1165	1159	1160	1155	1145
14	1143	1099	1115	1115	1104	1131	1143	1148	1148	1148	1142	1138	1139	1137	1138	1144	1155	1165	1155	1151	1149	1149	1149	1147	1140
15	1147	1147	1145	1139	1133	1137	1142	1142	1142	1145	1141	1131	1130	1137	1151	1177	1211	1242	1239	1192	1172	1164	1159	1155	*1159*
16 *q*	1154	1154	1154	1155	1156	1160	1163	1162	1158	1150	1147	1144	1145	1149	1149	1149	1154	1156	1155	1152	1153	1151	1150	1149	1153
17	1146	1144	1144	1148	1151	1153	1151	1154	1154	1144	1136	1134	1132	1132	1137	1142	1148	1148	1148	1149	1147	1148	1146	1145	1145
18	1145	1147	1146	1146	1146	1145	1147	1146	1145	1133	1127	1118	1122	1128	1138	1144	1150	1154	1153	1150	1149	1146	1145	1146	1142
19 *q*	1147	1147	1148	1144	1144	1149	1149	1146	1136	1126	1119	1110	1110	1120	1127	1132	1144	1146	1145	1144	1144	1144	1144	1144	1138
20	1139	1138	1139	1142	1144	1142	1145	1145	1146	1136	1127	1125	1125	1127	1132	1139	1145	1149	1150	1150	1148	1150	1153	1127	1140
21 *d*	1076	985	1076	1122	1148	1154	1154	1152	1149	1144	1142	1144	1148	1145	1150	1150	1151	1154	1155	1155	1155	1155	1155	1155	*1136*
22 *d*	1144	1132	1100	1071	1030	1026	1039	1087	1113	1123	1130	1136	1161	1199	1214	1200	1206	1205	1203	1178	1171	1161	1157	1160	1139
23	1155	1152	1155	1156	1153	1155	1161	1166	1163	1150	1144	1138	1141	1152	1156	1154	1155	1155	1154	1155	1155	1155	1155	1155	1154
24	1154	1154	1156	1155	1148	1148	1148	1151	1151	1149	1145	1140	1134	1139	1144	1149	1155	1160	1154	1152	1151	1149	1149	1134	1149
25	1122	1131	1136	1136	1138	1144	1151	1151	1150	1146	1141	1135	1129	1137	1142	1149	1157	1166	1171	1182	1172	1159	1155	1149	1148
26	1143	1148	1152	1155	1155	1155	1154	1154	1150	1139	1128	1127	1131	1139	1157	1176	1189	1188	1172	1166	1167	1163	1161	1155	1155
27	1138	1127	1127	1133	1133	1144	1149	1145	1139	1133	1133	1133	1133	1144	1157	1159	1163	1166	1171	1167	1160	1151	1149	1149	1146
28	1149	1149	1149	1148	1127	1130	1140	1144	1142	1139	1131	1126	1127	1134	1141	1149	1156	1159	1155	1149	1150	1150	1147	1145	1143
29 *d*	1143	1145	1148	1149	1148	1144	1144	1141	1127	1127	1126	1119	1115	1123	1138	1152	1154	1155	1155	1154	1154	1157	1148	1146	1142
30	1145	1141	1144	1148	1148	1149	1148	1145	1143	1137	1136	1129	1132	1137	1141	1148	1151	1156	1159	1166	1160	1153	1149	1149	1146
Mean	1142	1137	1140	1141	1138	1140	1144	1148	1147	1141	1137	*1132*	1132	1138	1146	1153	1159	*1164*	1164	1161	1158	1154	1152	1149	1147

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

108 ESKDALEMUIR — APRIL

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination			Vertical force							
	Maximum 16,000γ +		Minimum 16,000γ +		Range	Maximum 11° +		Minimum 11° +		Range	Maximum 44,000γ +		Minimum 44,000γ +		Range				
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ				°A.
1 *d*	0 26	612	500	12 3	112	14 42	58·8	35·5	1 13	23·3	18 1	1169	1104	5 9	65	4,4,3,3,3,3,2,4	26	1	82·2
2	21 1	572	486	10 44	86	6 3	61·8	43·1	9 25	18·7	16 10	1158	1120	6 20	38	2,4,4,3,3,3,2,2,2	22	1	82·2
3	3 43	572	484	10 42	88	13 34	59·1	43·0	8 8	16·1	17 30	1171	1108	2 8	63	3,3,2,3,2,3,1,1	18	1	82·2
4	5 53	566	491	12 1	75	13 40	60·1	47·9	9 21	*12·2*	17 30	1172	1139	11 31	33	1,2,2,2,2,2,1,1	13	0	82·2
5 *q*	20 23	560	499	10 40	*61*	13 54	59·4	43·5	8 21	15·9	7 5	1162	1134	12 42	28	0,2,1,1,1,2,1,0	8	0	82·4
6 *d*	18 1	*656*	461	18 21	*195*	18 0	61·9	40·0	20 7	21·9	19 33	1182	1122	12 14	60	0,3,3,2,2,5,5,3	23	1	82·4
7	20 8	589	484	11 14	105	13 44	59·4	40·3	8 39	19·1	19 48	1165	1130	12 30	35	3,2,2,2,2,3,3,3	20	1	82·4
8 *q*	0 25	560	487	11 33	73	13 31	59·9	43·5	8 37	16·4	3 30	1155	1131	12 0	24	2,0,1,1,1,1,0,0	6	0	82·4
9 *q*	19 32	582	488	11 12	94	14 21	59·7	42·2	8 52	17·5	18 30	1161	1123	12 12	38	0,0,2,2,3,2,3,2	14	0	82·4
10	17 27	596	492	11 10	104	14 10	61·8	43·0	8 44	18·8	17 49	1176	1123	12 22	53	3,1,2,1,2,3,1,2	15	0	82·4
11	19 30	573	492	11 14	81	14 2	58·6	41·4	8 53	17·2	19 25	1160	1124	12 49	36	2,2,2,2,2,1,2,1	14	0	82·4
12	15 56	592	485	12 57	107	14 31	61·1	43·9	8 1	17·2	17 30	1195	1128	11 49	67	3,1,2,2,4,3,3,2	20	1	82·4
13	18 28	588	486	12 1	102	14 16	60·5	41·3	9 3	19·2	19 25	1173	1114	4 7	59	2,3,1,2,2,3,3,3	19	1	82·4
14	1 32	584	477	12 48	107	13 42	57·6	41·2	7 14	16·4	17 20	1167	1077	1 42	90	4,3,2,2,2,3,1,2	19	1	82·4
15	7 26	624	492	11 14	132	14 46	62·4	42·1	6 50	20·3	17 51	*1245*	1126	12 20	119	2,2,3,2,4,4,3,1	21	1	82·4
16 *q*	19 43	569	480	12 17	89	13 55	57·6	42·0	7 39	15·6	7 5	1164	1142	11 37	*22*	1,2,1,3,2,2,2,1	14	0	82·4
17	2 14	574	490	12 30	84	13 42	55·7	42·1	8 28	13·6	5 20	1156	1130	13 20	26	2,1,1,2,2,3,2,2	15	1	82·4
18	18 1	576	483	10 59	93	13 32	57·9	43·3	7 42	14·6	17 52	1156	1115	11 39	41	1,0,2,3,2,3,2,1	14	0	82·4
19 *q*	22 32	580	507	11 5	73	13 14	59·3	41·2	7 57	18·1	6 40	1150	1104	11 56	46	1,1,1,2,2,2,1,2	12	1	82·3
20	1 10	596	480	12 30	116	13 29	59·6	33·1	23 58	26·5	22 36	1155	1108	24 0	47	3,1,2,2,3,2,1,4	18	1	82·3
21 *d*	16 51	565	*374*	1 34	191	14 12	57·1	*14·9*	1 29	*42·2*	23 41	1157	*918*	1 33	*239*	6,3,3,2,2,3,1,2	22	2	82·3
22 *d*	4 0	576	400	9 28	176	12 53	*65·5*	31·2	3 18	34·3	14 20	1217	1009	6 3	208	4,5,5,4,3,4,3,2	30	2	82·3
23	20 10	553	476	12 8	77	13 0	59·5	39·9	8 5	19·6	7 52	1167	1137	11 41	30	2,1,1,2,2,3,1,1	13	0	82·3
24	23 6	585	476	10 58	109	13 40	60·0	38·6	23 26	21·4	17 52	1161	1119	24 0	42	2,2,2,2,2,3,2,4	19	1	82·3
25	18 40	596	489	13 19	107	13 56	58·7	37·2	8 24	21·5	19 40	1184	1118	0 22	66	3,2,2,2,3,3,4,2	21	1	82·3
26	16 39	615	444	10 57	171	13 42	62·0	39·6	9 0	22·4	17 1	1195	1126	11 21	69	1,1,2,3,4,4,2,2	19	1	82·3
27	20 5	585	483	9 37	102	13 35	58·4	39·5	7 18	18·9	18 40	1178	1122	1 53	56	2,2,2,2,3,3,3,2	19	1	82·3
28	20 0	576	503	12 31	73	13 12	58·3	42·4	8 12	15·9	17 25	1161	1122	12 41	39	1,2,1,1,3,3,2,2	15	1	82·3
29 *d*	15 3	602	470	7 37	132	15 2	62·3	41·9	7 20	20·4	21 30	1160	1113	12 47	47	2,2,4,3,4,4,1,3	23	1	82·3
30	19 0	588	490	11 22	98	12 2	56·1	43·1	6 51	13·0	19 30	1167	1128	11 42	39	2,1,3,2,3,2,2,2	17	1	82·3
Mean	- -	585	478	- -	107	- -	59·7	40·1	- -	19·6	- -	1171	1111	- -	61	-	17·6	0·77	82·3

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

109 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — MAY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *q*	550	556	551	552	551	552	547	536	523	510	504	503	515	525	537	548	560	578	592	568	554	559	559	546	545
2	544	552	546	548	536	546	547	531	516	515	512	509	503	556	533	556	564	573	583	580	578	541	547	550	544
3	564	548	547	546	528	535	531	512	506	496	491	499	532	540	539	560	559	596	576	584	590	560	556	561	544
4	560	560	562	555	559	548	546	537	524	512	502	508	515	527	554	576	562	596	588	568	560	559	560	531	549
5	524	543	542	544	544	544	537	522	515	512	511	512	523	536	553	567	584	578	583	578	563	550	544	540	544
6	534	550	540	530	540	540	540	532	516	487	484	503	504	507	560	572	555	614	612	584	555	544	544	545	541
7 *d*	538	535	536	536	532	531	460	472	479	496	459	452	473	503	498	488	532	569	608	584	556	557	548	539	520
8	528	528	528	532	539	541	531	527	530	519	499	472	476	488	483	521	541	556	562	560	560	560	556	549	529
9 *d*	545	543	538	538	540	542	540	524	496	516	500	498	488	503	522	531	547	572	588	584	576	559	549	544	537
10	537	539	537	534	541	536	529	511	494	494	488	468	470	491	499	548	574	632	636	583	559	544	540	539	534
11	540	535	533	539	535	534	532	527	503	491	485	488	512	523	532	540	567	603	604	588	566	546	549	559	539
12	539	540	543	544	527	540	544	539	522	508	508	510	504	519	531	553	555	576	584	576	574	583	561	552	543
13	576	544	539	532	527	538	544	536	526	499	487	495	492	498	516	532	548	559	568	564	554	551	545	542	534
14	541	540	540	543	548	548	544	533	520	502	489	485	495	516	531	550	560	572	600	568	555	552	550	560	539
15 *d*	543	526	542	559	531	516	475	504	512	480	468	471	488	512	532	541	552	552	548	559	572	535	568	491	524
16 *d*	537	540	424	555	469	458	441	460	467	457	460	460	483	489	532	493	536	546	568	571	558	576	557	555	*508*
17	544	535	537	537	532	532	513	504	495	484	472	466	484	496	513	520	533	549	560	561	551	557	550	533	523
18	513	516	532	536	527	528	524	512	496	492	496	496	500	512	523	539	553	567	588	559	552	561	552	540	530
19 *q*	544	543	540	540	538	536	528	524	516	505	507	512	528	526	536	537	551	553	556	558	556	556	553	556	537
20 *q*	552	558	548	545	544	548	547	540	530	519	517	520	532	543	557	564	568	575	581	575	567	557	539	533	548
21 *d*	537	536	548	552	560	549	512	526	516	507	515	496	524	523	564	560	628	658	604	599	574	540	536	512	549
22	524	523	536	545	532	544	533	516	496	509	504	512	512	516	528	568	588	600	592	585	560	548	524	516	538
23	512	521	535	547	528	544	532	516	496	482	478	472	483	508	542	536	540	559	568	567	568	556	548	552	529
24	523	552	535	536	528	533	520	499	492	477	472	484	496	509	533	548	560	559	571	560	560	562	562	572	535
25	543	524	536	519	523	540	528	520	510	496	487	482	503	514	538	542	563	566	557	552	552	554	555	561	532
26 *q*	544	540	542	545	544	542	534	517	498	491	484	492	504	512	538	560	564	579	578	566	564	563	561	559	538
27	567	552	557	560	559	552	536	520	507	503	497	495	494	507	515	544	560	588	594	584	570	567	564	555	544
28 *q*	555	540	548	552	558	557	548	540	528	516	504	503	509	530	542	559	571	569	573	578	576	578	580	579	550
29	564	568	560	539	561	558	551	537	519	504	499	515	496	560	577	581	543	576	595	584	580	576	587	577	554
30	558	545	566	560	553	561	560	548	524	503	497	498	509	526	544	572	604	596	572	576	570	567	564	562	551
31	556	552	553	556	561	561	557	550	541	528	520	524	522	537	551	556	564	595	603	600	596	588	564	544	*557*
Mean	543	541	539	544	539	540	529	522	510	500	*493*	493	502	518	534	547	561	579	*584*	574	565	558	554	547	538

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

110 ESKDALEMUIR (D) — 11° + — MAY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 *q*	50·4	50·7	51·2	48·5	45·8	44·0	42·3	41·9	42·5	43·3	46·7	50·2	54·6	56·6	55·5	54·0	52·1	51·0	48·8	48·5	50·3	51·1	48·8	48·8	49·1
2	50·1	49·5	49·4	49·6	50·9	48·8	45·8	45·4	44·9	44·8	47·9	51·3	55·1	58·4	58·3	55·5	53·2	52·9	52·2	44·9	41·3	47·7	51·0	51·5	50·0
3	51·9	48·3	48·3	46·5	46·9	48·8	42·5	43·7	43·6	46·2	49·5	52·8	56·6	57·0	56·9	54·9	52·3	53·0	50·6	51·2	47·0	52·7	52·0	51·9	50·2
4	51·2	52·0	51·5	49·3	46·5	42·9	42·1	42·0	41·7	43·0	46·4	50·6	54·0	56·6	57·9	56·9	52·9	53·0	51·0	48·3	51·3	51·1	50·2	45·0	49·5
5	48·4	50·2	48·2	47·1	45·8	43·4	41·8	40·8	40·9	42·9	45·8	51·1	56·0	57·2	56·4	54·7	53·7	51·1	50·3	49·6	49·4	46·4	48·9	47·6	48·7
6	46·7	47·4	41·9	44·5	44·0	43·7	41·3	40·1	40·3	44·8	49·5	54·4	57·6	58·2	60·1	55·8	50·7	51·4	49·2	45·8	46·3	47·5	44·1	43·9	*47·9*
7 *d*	44·1	47·8	42·7	43·9	44·7	45·6	53·1	51·9	39·6	43·3	46·0	53·1	54·8	53·8	53·3	52·9	53·2	51·9	45·8	48·0	48·8	50·5	49·2	48·6	48·6
8	49·3	48·6	47·9	47·5	46·7	45·3	48·4	47·4	42·5	43·6	45·4	48·6	52·1	55·6	56·9	56·9	54·7	53·4	51·5	51·0	50·7	51·0	49·6	49·5	49·8
9 *d*	48·5	49·7	50·1	49·3	48·5	46·5	45·0	44·8	45·7	48·6	50·2	54·7	58·9	57·7	55·7	56·0	54·6	52·2	52·8	51·5	51·7	51·6	51·2	50·2	51·1
10	49·5	49·3	49·4	50·1	49·3	44·1	41·2	40·7	39·7	41·3	42·7	45·1	48·2	52·1	53·0	54·9	53·9	51·5	50·1	49·4	50·3	52·8	51·8	51·1	48·4
11	50·8	48·4	48·2	48·9	50·5	48·6	45·7	44·9	44·3	45·2	47·6	51·1	52·8	54·5	53·9	53·9	54·3	51·5	50·1	51·4	50·1	51·6	51·9	50·2	50·0
12	49·6	49·4	48·7	49·6	49·9	49·3	45·8	42·0	42·1	43·5	45·8	50·9	54·7	56·6	56·7	55·6	54·2	52·7	51·0	49·9	49·5	51·2	49·3	48·9	49·9
13	54·7	53·2	50·2	54·2	57·5	47·3	42·9	40·5	43·0	43·2	48·7	51·5	54·6	56·2	56·4	55·4	53·9	52·1	51·4	50·3	49·7	50·0	49·5	48·8	50·6
14	47·9	47·4	47·1	46·8	46·6	45·9	44·0	42·5	42·0	42·3	45·0	49·2	54·1	58·3	59·2	58·2	55·0	52·3	51·1	50·3	47·6	50·1	51·3	52·7	49·5
15 *d*	53·2	48·8	56·3	52·9	47·7	39·3	45·7	53·1	48·4	48·5	52·5	57·6	61·3	59·6	57·6	54·3	51·1	49·3	49·4	50·2	50·9	46·7	50·4	47·5	*51·3*
16 *d*	44·8	48·4	56·0	49·5	51·2	46·6	47·6	50·2	43·9	47·4	49·0	51·6	55·6	58·6	60·0	51·3	52·3	52·8	52·3	53·9	54·0	53·9	46·5	47·5	51·0
17	48·9	48·6	46·8	46·6	43·0	41·9	41·7	41·2	41·3	44·0	46·6	50·2	53·6	54·8	54·7	53·8	52·1	50·2	48·8	49·6	50·5	49·3	47·4	45·9	48·0
18	43·3	44·0	47·7	45·5	46·3	45·8	42·8	41·5	45·0	49·3	50·9	53·6	53·9	54·5	54·3	53·0	51·3	50·1	47·9	50·7	51·5	52·5	48·7	50·5	48·9
19 *q*	51·3	49·6	48·5	47·6	46·4	45·2	43·3	42·3	43·5	46·1	49·2	52·2	54·8	56·1	55·0	52·8	51·6	50·7	50·3	50·7	51·1	51·1	50·5	50·4	49·6
20 *q*	50·2	50·1	48·7	47·1	46·4	43·7	41·6	41·0	43·0	45·6	49·1	52·9	55·2	56·5	55·2	54·4	53·3	52·1	51·5	51·2	51·2	49·8	48·3	47·5	49·4
21 *d*	48·4	44·1	40·3	40·2	39·4	42·0	44·7	46·0	44·8	46·6	49·3	53·9	56·9	56·5	59·4	58·1	58·5	57·3	55·0	44·1	45·8	50·5	48·8	52·8	49·3
22	44·6	48·9	45·1	47·8	53·2	49·3	48·9	44·3	44·6	46·7	46·0	48·3	50·9	52·1	51·9	53·0	50·5	51·3	52·0	53·7	49·4	49·3	49·3	47·7	49·1
23	47·5	45·5	43·3	44·6	52·2	49·4	46·7	44·2	44·7	45·4	47·5	52·3	54·8	55·3	55·6	53·4	52·7	52·2	52·1	52·0	51·2	49·4	49·9	50·0	49·7
24	46·0	42·2	40·3	44·1	45·0	43·2	40·9	42·6	45·7	49·2	53·0	58·2	61·0	60·4	59·4	57·5	54·6	52·1	52·1	52·1	52·0	52·0	50·6	50·3	50·2
25	46·1	43·0	45·2	42·9	48·5	47·5	42·9	42·8	43·9	46·0	49·3	54·2	58·2	59·4	58·7	56·9	54·5	52·1	50·4	51·2	51·9	52·0	51·3	49·5	49·9
26 *q*	51·1	50·3	49·2	48·3	46·6	45·4	44·1	42·3	43·8	45·0	47·3	51·1	55·5	57·7	59·0	57·5	54·9	53·8	52·4	51·7	52·4	51·5	51·4	51·3	50·6
27	52·1	45·1	46·7	48·4	47·6	45·4	44·9	45·3	44·7	46·8	49·5	52·9	54·7	56·5	56·7	55·7	52·7	50·6	51·0	51·6	51·7	51·7	50·8	51·3	50·2
28 *q*	48·4	48·5	47·9	46·7	46·1	44·2	42·6	42·8	43·9	44·8	46·7	50·6	54·3	56·0	56·3	55·5	54·3	52·4	52·2	52·5	51·4	50·9	51·0	49·5	49·6
29	48·9	49·4	49·7	41·9	44·8	44·8	44·1	43·9	45·0	46·3	48·9	52·9	56·8	60·3	59·3	61·0	61·3	58·8	54·9	54·0	52·0	51·9	53·8	47·4	*51·3*
30	48·5	45·9	54·0	51·4	51·6	47·7	43·0	40·5	40·1	40·6	43·3	46·8	51·5	54·3	55·6	54·6	53·0	50·3	46·5	50·2	51·4	51·1	50·5	49·9	48·8
31	49·5	48·7	48·3	47·8	47·2	46·2	47·4	46·3	48·2	50·2	51·2	54·5	57·5	59·8	59·4	56·9	53·0	52·2	51·7	52·1	51·9	50·9	50·0	48·2	51·2
Mean	48·9	48·2	48·0	47·4	47·6	45·5	44·3	43·8	*43·5*	45·3	47·9	51·9	55·2	56·7	*56·7*	55·3	53·6	52·2	50·9	50·4	50·1	50·6	49·9	49·2	49·7

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

111 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — MAY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *q*	1150	1150	1148	1150	1155	1156	1155	1152	1146	1137	1132	1127	1126	1133	1145	1146	1151	1160	1166	1171	1163	1153	1151	1148	1149
2	1148	1148	1149	1149	1147	1144	1150	1152	1151	1146	1141	1134	1134	1136	1147	1161	1163	1161	1161	1177	1181	1161	1156	1154	1152
3	1146	1139	1132	1128	1125	1122	1138	1140	1139	1139	1139	1135	1137	1145	1150	1156	1162	1168	1179	1169	1156	1146	1149	1149	1145
4	1151	1145	1139	1141	1145	1152	1151	1151	1150	1140	1134	1123	1121	1128	1133	1151	1160	1161	1172	1173	1163	1156	1148	1145	1147
5	1140	1140	1150	1156	1156	1157	1157	1155	1147	1138	1129	1117	1116	1122	1130	1141	1151	1164	1169	1173	1172	1171	1161	1159	1149
6	1156	1145	1137	1139	1140	1149	1146	1144	1139	1130	1120	1120	1134	1144	1159	1182	1191	1191	1196	1196	1189	1178	1147	1141	1155
7 *d*	1140	1112	1128	1137	1146	1141	1121	1095	1104	1110	1126	1134	1140	1163	1150	1152	1161	1180	1203	1207	1200	1192	1174	1156	1149
8	1157	1162	1163	1164	1163	1162	1161	1155	1156	1151	1151	1150	1139	1141	1156	1157	1166	1169	1166	1162	1161	1156	1157	1156	1158
9 *d*	1155	1156	1157	1155	1155	1156	1157	1154	1149	1143	1146	1146	1156	1168	1186	1191	1207	1213	1201	1185	1178	1173	1168	1162	*1167*
10	1162	1162	1161	1158	1153	1147	1151	1151	1152	1144	1143	1146	1151	1155	1157	1159	1174	1185	1190	1188	1179	1166	1156	1156	1160
11	1151	1140	1150	1152	1150	1151	1157	1155	1148	1139	1141	1139	1140	1144	1151	1153	1156	1169	1182	1179	1174	1162	1157	1146	1154
12	1144	1152	1155	1153	1156	1151	1151	1156	1152	1146	1144	1140	1145	1152	1156	1161	1163	1167	1169	1171	1166	1158	1157	1156	1155
13	1149	1129	1099	1118	1119	1136	1163	1169	1165	1152	1147	1147	1153	1151	1150	1156	1161	1168	1167	1163	1163	1157	1156	1156	1150
14	1157	1157	1157	1157	1159	1159	1159	1158	1153	1144	1139	1134	1131	1131	1135	1144	1155	1167	1178	1184	1179	1164	1157	1153	1155
15 *d*	1139	1128	1127	1098	1123	1146	1155	1146	1149	1146	1133	1139	1151	1164	1168	1167	1173	1174	1169	1166	1165	1177	1146	1095	1148
16 *d*	1112	1110	963	999	1037	1033	1053	1111	1134	1152	1164	1168	1171	1169	1179	1229	1223	1186	1182	1181	1182	1169	1156	1136	*1133*
17	1157	1164	1167	1169	1168	1169	1169	1170	1168	1156	1146	1142	1142	1150	1156	1156	1160	1167	1174	1173	1168	1162	1152	1141	1160
18	1139	1134	1127	1132	1139	1140	1147	1148	1148	1134	1129	1128	1129	1139	1150	1161	1173	1179	1185	1175	1166	1161	1161	1156	1149
19 *q*	1147	1151	1155	1157	1158	1158	1156	1153	1149	1140	1139	1133	1129	1134	1143	1147	1152	1156	1153	1152	1152	1153	1156	1155	1149
20 *q*	1153	1152	1152	1152	1155	1156	1154	1151	1150	1145	1144	1139	1139	1146	1153	1159	1162	1166	1169	1172	1168	1165	1160	1155	1155
21 *d*	1146	1139	1125	1111	1101	1110	1118	1107	1110	1112	1112	1108	1128	1166	1201	1214	1240	1248	1237	1229	1157	1129	1135	1072	1148
22	1128	1102	1100	1129	1125	1102	1119	1130	1139	1146	1150	1156	1169	1186	1194	1202	1224	1230	1214	1194	1185	1167	1158	1157	1159
23	1151	1123	1123	1123	1122	1099	1122	1139	1146	1145	1140	1134	1137	1144	1152	1163	1163	1163	1162	1161	1161	1162	1157	1149	1143
24	1104	1088	1123	1139	1140	1141	1151	1151	1147	1137	1132	1122	1129	1146	1159	1172	1174	1174	1167	1158	1155	1152	1155	1145	1144
25	1132	1132	1121	1120	1120	1129	1149	1158	1157	1150	1143	1140	1146	1163	1178	1186	1189	1189	1187	1178	1165	1160	1157	1150	1154
26 *q*	1144	1141	1147	1156	1162	1168	1169	1164	1162	1155	1147	1134	1136	1145	1151	1163	1169	1174	1175	1173	1166	1161	1157	1156	1157
27	1141	1134	1134	1137	1147	1153	1155	1152	1146	1134	1128	1125	1133	1140	1150	1155	1163	1171	1169	1165	1161	1157	1156	1148	1148
28 *q*	1146	1151	1152	1156	1158	1161	1161	1157	1154	1146	1140	1130	1128	1128	1134	1138	1145	1150	1152	1152	1151	1150	1149	1149	1147
29	1146	1135	1107	1096	1127	1140	1149	1152	1152	1150	1140	1134	1134	1134	1156	1170	1169	1163	1165	1167	1163	1156	1150	1134	1145
30	1123	1125	1128	1132	1137	1139	1147	1155	1156	1148	1141	1132	1132	1137	1143	1147	1159	1182	1202	1186	1171	1158	1153	1150	1149
31	1151	1152	1153	1153	1156	1157	1156	1156	1150	1139	1137	1132	1131	1137	1145	1155	1165	1169	1174	1177	1170	1168	1162	1155	1154
Mean	1144	1139	*1133*	1136	1140	1141	1147	1148	1147	1142	1139	1135	1138	1147	1155	1164	1172	1176	*1179*	1176	1169	1161	1155	1147	1151

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

112 ESKDALEMUIR — MAY

	TERRESTRIAL MAGNETIC ELEMENTS															3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination				Vertical force									
	Maximum 16,000γ +		Minimum 16,000γ +		Range	Maximum 11° +		Minimum 11° +		Range	Maximum 44,000γ +		Minimum 44,000γ +		Range				
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ				°A.
1 *q*	18 49	608	493	11 5	115	14 11	57·7	40·5	8 12	17·2	19 35	1173	1125	12 19	48	2,2,1,2,3,3,3,2	18	0	82·3
2	19 18	608	484	11 1	124	13 32	60·4	35·9	19 59	24·5	19 53	1191	1130	12 10	61	2,2,3,3,4,4,4,2	24	1	82·3
3	20 10	638	478	11 9	160	13 44	58·6	38·9	20 7	19·7	18 41	1181	1117	5 35	64	3,3,2,3,3,4,4,3	25	1	82·3
4	18 16	608	496	10 46	112	14 3	59·4	41·1	6 12	18·3	18 50	1174	1118	12 12	56	2,1,1,1,3,4,3,3	18	1	82·3
5	16 46	592	507	0 10	85	13 50	57·6	40·0	7 44	17·6	21 10	1175	1113	12 10	62	3,0,1,1,2,2,3,2	14	0	82·3
6	17 58	648	475	10 19	173	14 11	61·3	36·2	22 49	25·1	18 56	1201	1116	11 19	85	3,2,2,2,4,4,4,4	25	1	82·4
7 *d*	18 22	620	403	6 57	217	7 14	60·2	38·0	8 14	22·2	19 7	1208	1094	7 29	114	3,3,5,4,4,4,4,3	30	1	82·5
8	21 32	576	461	11 58	115	13 59	58·5	40·5	8 53	18·0	17 12	1171	1137	13 6	*34*	1,2,3,4,3,3,2,2	20	1	82·6
9 *d*	17 48	598	406	8 53	192	12 28	63·1	*29·4*	7 26	33·7	17 41	1214	1138	9 25	76	2,2,6,4,4,4,2,2	26	1	82·6
10	17 44	663	459	11 22	204	15 47	56·7	37·6	8 39	19·1	18 32	1194	1141	10 45	53	2,2,2,3,2,6,4,2	23	1	82·8
11	17 59	621	478	10 50	143	13 50	55·5	40·9	6 58	14·6	18 55	1183	1137	9 40	46	2,2,2,1,2,4,4,3	20	1	82·8
12	21 22	608	493	12 42	115	13 37	57·5	40·4	8 11	17·1	19 40	1173	1139	11 42	*34*	2,3,3,2,3,3,2,4	22	1	82·9
13	0 39	598	476	10 9	122	1 19	60·8	37·9	8 3	22·9	7 55	1172	1095	2 26	77	4,3,3,3,2,2,2,1	20	1	82·9
14	18 23	612	480	11 5	132	14 35	59·7	41·3	8 9	18·4	19 38	1185	1129	13 11	56	1,1,1,2,2,3,4,3	17	0	83·0
15 *d*	22 41	596	417	7 0	179	12 51	65·1	32·3	24 0	32·8	21 38	1180	1073	10 32	107	4,5,5,4,4,2,3,5	32	1	83·0
16 *d*	15 3	617	*346*	2 32	271	2 15	*77·2*	31·4	3 0	*45·8*	15 55	1240	*888*	2 32	*352*	6,6,5,4,5,5,4,4	39	2	83·0
17	19 24	565	456	11 30	109	13 8	55·7	38·5	5 19	17·2	18 52	1175	1140	23 30	35	2,3,1,2,3,2,2,3	18	0	83·1
18	18 21	593	486	8 46	107	13 43	54·8	40·2	7 30	14·6	18 24	1186	1125	2 35	61	3,2,2,1,2,2,3,2	17	0	83·2
19 *q*	23 30	564	499	10 6	*65*	14 9	56·7	41·9	7 16	14·8	5 5	1160	1124	12 25	36	1,0,1,2,3,1,0,2	10	0	83·2
20 *q*	18 49	585	512	10 24	73	13 9	56·9	40·1	7 20	16·8	19 40	1173	1134	12 10	39	1,1,1,1,2,1,2,3	12	0	83·2
21 *d*	17 9	*724*	451	13 32	*273*	14 19	63·0	32·3	19 52	30·7	17 29	*1265*	1035	23 23	230	3,3,3,3,5,6,5,4	32	2	83·2
22	19 24	637	470	8 32	167	4 37	57·7	41·7	2 38	16·0	17 20	1231	1054	1 57	177	4,3,3,3,2,4,4,4	27	1	83·4
23	20 10	585	468	11 50	117	4 58	60·1	42·3	2 48	17·8	15 44	1222	1090	5 19	132	3,4,2,2,3,3,3,3	23	1	83·4
24	23 25	590	456	10 58	134	13 11	62·0	35·0	2 7	27·0	17 12	1175	1069	1 4	106	4,2,2,3,3,3,2,3	22	1	83·4
25	23 39	583	476	11 4	107	13 32	59·8	39·3	3 3	20·5	18 20	1190	1111	2 47	79	3,3,1,2,3,2,2,3	19	1	83·4
26 *q*	17 50	584	479	10 22	105	14 51	59·4	41·1	7 33	18·3	18 20	1178	1129	11 47	49	1,1,2,2,3,2,2,2	15	0	83·6
27	18 30	600	486	12 10	114	13 53	57·2	42·9	8 2	*14·3*	17 41	1173	1124	11 45	49	3,1,2,2,2,3,2,2	17	0	83·6
28 *q*	19 6	593	499	11 15	94	14 10	56·7	41·7	6 57	15·0	6 25	1163	1126	12 3	37	3,1,0,2,2,2,3,2	15	0	83·6
29	15 29	631	472	12 49	159	15 31	63·7	38·7	3 42	25·0	15 50	1175	1083	3 15	92	3,3,2,3,5,5,3,3	27	1	83·6
30	16 57	627	492	10 49	135	2 47	56·3	39·6	7 38	16·7	18 30	1204	1119	0 42	85	3,2,3,1,2,4,2,1	18	1	83·6
31	19 11	624	507	10 21	117	13 59	60·6	45·7	7 17	14·9	19 35	1179	1129	11 42	50	0,1,2,2,3,3,3,3	17	0	83·7
Mean	– –	610	470	– –	140	– –	59·7	38·8	– –	20·9	– –	1189	1106	– –	83	–	–	0·71	83·0

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

113 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — JUNE

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *d*	529	536	544	548	516	515	504	533	532	497	464	473	501	515	528	596	604	588	578	559	552	549	548	548	536
2	544	542	544	542	536	524	520	526	517	498	496	502	500	511	524	535	547	556	557	559	567	564	560	563	535
3	547	546	541	543	547	542	542	538	528	514	506	513	526	527	542	563	583	576	571	563	562	556	555	558	545
4 *q*	558	549	545	548	548	545	535	519	503	495	488	499	518	515	540	554	568	584	579	584	584	572	563	556	544
5	555	558	554	557	550	550	541	523	507	497	499	520	550	536	559	565	556	580	595	592	575	571	572	572	551
6	568	569	570	568	568	562	548	536	522	516	506	503	520	527	549	560	575	587	595	586	582	579	578	568	556
7	567	560	557	564	563	554	548	542	532	522	519	532	543	540	543	572	602	593	588	576	583	584	568	564	559
8	559	560	562	564	563	555	547	532	520	513	506	497	515	513	532	552	580	576	583	604	585	568	555	560	550
9	555	561	554	552	552	549	540	531	522	519	515	520	539	552	558	582	552	575	591	591	583	571	563	559	554
10	567	563	563	566	551	543	536	527	519	502	498	503	519	543	543	559	570	576	584	580	575	570	569	567	550
11	566	561	563	565	564	561	554	540	527	516	513	512	522	536	547	556	574	582	587	616	591	588	583	583	559
12	579	578	571	571	572	568	559	550	528	518	505	512	524	542	554	563	574	583	595	598	587	583	563	562	560
13	555	552	562	563	554	553	554	555	543	531	519	519	515	535	536	562	571	599	615	586	576	554	550	554	555
14	555	557	558	559	560	559	547	535	523	515	510	511	522	539	546	579	604	571	571	576	571	566	561	559	552
15 *q*	555	556	557	556	559	561	557	547	538	531	520	518	523	536	555	562	568	575	571	573	568	567	563	563	553
16 *q*	559	559	560	562	563	560	555	551	542	531	527	526	531	536	551	562	577	582	578	575	576	577	583	580	558
17	575	563	563	567	567	561	553	547	541	535	534	532	538	545	558	584	619	611	616	595	599	583	575	549	*567*
18 *d*	553	552	551	554	557	555	548	543	527	515	491	503	522	520	547	574	578	583	602	611	587	559	554	544	551
19 *d*	537	522	547	547	551	547	519	492	479	479	487	497	515	523	531	547	556	557	555	568	574	571	559	551	*534*
20	551	571	545	546	547	545	547	534	519	502	504	500	508	526	548	583	596	594	579	577	583	571	560	548	549
21 *d*	549	552	548	550	547	547	533	529	525	515	491	515	532	506	548	531	568	608	629	604	586	555	534	551	548
22	551	548	532	562	543	540	519	520	511	495	491	499	502	511	531	533	546	562	574	574	575	573	567	557	538
23	552	553	555	551	551	548	539	524	511	499	491	494	511	547	567	581	583	579	579	591	582	570	567	563	549
24	555	560	569	567	562	567	559	550	527	514	503	507	521	541	558	567	566	569	575	595	587	579	574	568	556
25	572	572	570	562	559	556	551	540	532	524	529	533	529	531	567	576	575	579	603	601	628	579	570	555	562
26 *d*	567	567	551	557	561	548	547	546	534	507	511	531	542	543	578	617	547	575	571	595	592	576	579	571	559
27	571	567	563	559	563	553	559	542	531	526	519	503	522	530	558	551	583	592	572	579	571	567	567	563	555
28 *q*	561	558	556	557	555	553	543	536	527	530	540	531	535	544	558	547	557	562	569	576	571	563	563	563	552
29 *q*	562	559	559	560	562	562	559	547	528	514	504	515	535	551	562	572	579	579	571	574	569	567	563	562	555
30	560	562	564	565	567	563	555	541	531	526	530	533	542	546	575	571	571	571	574	575	584	578	575	568	559
Mean	558	557	556	558	555	551	544	536	524	513	*507*	512	524	532	550	565	574	580	584	*584*	580	570	565	561	552

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

114 ESKDALEMUIR (D) — 11° + — JUNE

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 *d*	46·0	45·0	41·2	45·5	49·4	48·3	45·6	41·3	39·6	43·9	50·0	50·6	53·0	55·6	57·3	59·0	53·9	51·9	48·6	48·2	49·5	52·0	51·9	51·1	49·1
2	49·6	48·5	48·0	47·3	47·1	47·5	47·4	44·6	42·9	43·7	48·1	53·2	55·7	56·6	56·5	53·7	51·5	50·5	49·6	50·5	50·6	50·9	50·2	48·6	49·7
3	47·8	45·6	44·5	44·1	42·7	42·5	42·7	42·7	43·1	43·3	47·1	52·3	56·5	57·6	57·9	55·0	53·6	52·1	50·5	50·1	51·4	50·7	50·7	50·6	49·0
4 *q*	49·1	47·6	46·3	44·7	43·3	41·5	42·2	43·7	45·0	48·5	52·7	56·7	59·0	58·5	57·0	54·5	52·8	52·1	52·1	52·2	49·4	50·3	51·1	49·7	50·0
5	48·9	47·3	45·3	46·3	46·5	43·4	41·8	41·3	42·1	45·9	50·5	52·8	56·5	57·0	57·2	54·8	53·1	53·4	53·1	52·0	52·5	52·0	51·3	51·5	49·9
6	49·4	49·4	50·2	48·4	45·0	42·8	42·1	44·0	44·3	45·8	49·8	53·1	55·6	58·3	58·6	57·4	54·0	52·2	50·4	50·3	50·9	50·9	50·3	49·9	50·1
7	50·3	49·7	47·5	47·4	44·8	42·3	39·6	39·6	41·3	43·5	47·8	52·4	55·8	56·8	56·1	56·1	56·2	54·0	52·1	50·1	51·0	47·4	47·4	50·0	49·1
8	48·6	48·8	48·6	48·2	45·8	42·8	40·3	39·7	40·8	44·3	48·4	54·2	58·5	59·9	61·0	59·9	57·7	54·4	52·1	51·1	48·5	48·5	49·4	49·7	50·1
9	48·9	46·7	43·1	46·1	44·6	42·3	40·7	41·6	43·7	46·3	49·0	53·0	55·0	57·2	56·8	56·1	54·3	52·4	51·5	50·7	51·0	49·2	48·6	49·7	49·1
10	51·1	49·5	48·6	49·1	45·7	43·5	43·9	43·8	43·3	44·8	48·4	52·2	54·5	56·5	56·7	55·7	54·0	53·0	52·3	51·1	50·2	50·2	50·2	49·7	49·9
11	49·3	49·3	49·3	49·6	49·4	45·7	43·0	43·0	44·0	48·5	53·0	57·4	59·2	60·1	59·3	56·9	54·1	52·3	50·7	50·9	50·4	50·2	49·9	50·0	*51·1*
12	49·0	49·9	49·5	47·8	44·7	40·8	39·3	38·7	40·3	43·4	47·0	52·0	55·1	55·3	54·7	53·0	52·7	52·0	51·9	51·5	50·7	52·3	49·5	50·1	48·8
13	51·0	48·9	47·0	49·8	51·5	47·9	45·9	42·7	43·9	46·9	50·2	54·5	56·0	57·1	56·6	54·9	53·8	53·9	51·9	48·2	46·4	49·2	50·2	50·0	50·3
14	49·5	48·7	48·4	47·2	45·5	43·2	41·5	41·2	41·8	43·3	47·7	51·3	55·4	56·6	55·8	55·4	53·7	51·9	50·9	51·1	51·6	51·3	51·1	50·3	49·3
15 *q*	49·6	48·7	48·2	46·9	47·5	47·4	44·0	43·1	44·5	43·8	45·5	49·5	52·9	54·1	53·9	53·2	52·7	52·0	51·1	50·9	50·4	49·9	49·7	49·9	49·1
16 *q*	49·0	48·6	47·9	46·9	46·6	45·1	44·9	45·5	45·3	46·6	48·7	51·1	53·6	54·3	55·2	54·9	54·1	52·7	51·1	51·0	51·1	50·9	51·6	51·6	49·9
17	48·5	46·6	47·5	47·2	44·3	41·2	39·4	39·8	42·1	44·8	49·0	53·3	56·7	57·4	57·2	57·2	55·5	52·9	53·1	52·6	52·7	50·9	51·0	48·9	49·6
18 *d*	47·8	47·4	45·5	43·9	41·6	39·0	38·8	38·3	40·9	43·0	48·2	52·1	56·1	57·2	59·7	59·1	54·7	52·7	52·3	51·3	49·4	49·8	50·0	48·4	48·6
19 *d*	46·0	34·7	42·8	40·5	37·1	41·1	44·6	44·5	53·9	49·4	53·6	56·6	58·2	57·5	57·1	55·9	53·8	52·3	50·7	51·0	50·8	50·1	48·4	48·8	49·1
20	49·2	45·8	45·7	45·1	42·8	39·4	40·0	39·9	39·9	44·1	48·5	53·2	58·5	60·8	61·3	62·0	58·3	53·0	49·5	49·1	50·9	46·8	44·8	46·2	48·9
21 *d*	46·3	47·5	47·1	45·6	40·9	38·5	36·6	37·2	36·1	41·1	47·5	55·4	60·4	59·2	60·5	58·3	56·5	52·9	48·9	46·9	47·0	46·7	44·2	47·5	47·9
22	40·2	45·0	49·5	45·9	43·0	43·1	38·1	38·8	39·9	43·1	48·3	52·5	54·7	55·5	55·6	55·9	54·2	51·5	50·2	49·1	49·4	49·4	45·7	48·1	*47·8*
23	48·5	48·6	48·8	47·5	45·6	43·3	40·6	39·3	39·6	42·1	47·8	54·0	59·7	61·5	59·5	55·6	53·0	51·9	51·1	51·1	49·4	49·1	46·7	47·0	49·2
24	48·4	47·6	47·4	45·6	42·8	43·2	40·3	40·7	42·5	43·9	48·6	52·3	56·1	58·4	59·1	57·7	55·5	51·6	50·1	50·2	50·1	49·2	48·1	47·6	49·0
25	48·6	50·3	49·3	47·4	45·1	43·0	40·3	39·7	40·1	42·0	46·6	52·9	58·2	61·0	60·6	56·8	53·6	51·4	51·5	50·4	49·4	48·6	41·2	47·8	49·0
26 *d*	51·5	48·4	43·2	44·8	44·7	44·0	44·1	41·3	41·9	45·4	47·6	49·4	53·9	54·0	54·2	53·0	51·0	53·0	52·9	52·4	48·5	48·6	51·2	47·6	48·6
27	49·8	50·5	48·3	45·9	44·1	43·8	44·1	41·3	44·3	44·1	46·0	48·5	52·7	55·9	56·1	53·2	51·1	51·6	51·0	51·5	51·5	50·4	49·8	48·7	48·9
28 *q*	48·5	47·6	47·3	46·1	44·1	42·4	40·7	41·1	41·2	43·8	47·5	52·0	53·1	54·4	54·8	52·9	52·2	51·7	51·5	51·7	50·9	50·2	49·4	48·9	48·5
29 *q*	48·4	48·3	47·5	47·5	46·7	45·6	43·9	40·7	40·2	40·8	44·2	49·2	54·2	55·9	54·7	53·0	52·0	51·0	49·7	50·4	51·5	51·2	50·3	49·9	48·6
30	48·9	48·7	48·0	46·2	45·1	42·3	42·0	42·6	44·0	47·5	49·7	52·5	54·8	56·2	57·9	56·6	53·3	51·5	51·7	52·0	51·4	51·1	51·9	50·5	49·9
Mean	48·6	47·6	47·1	46·5	44·9	43·2	41·9	*41·4*	42·4	44·6	48·6	52·7	56·0	57·2	*57·3*	55·9	53·9	52·3	51·1	50·7	50·3	49·9	49·2	49·3	49·3

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

115 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — JUNE

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *d*	1144	1118	1098	1084	1079	1096	1118	1142	1151	1155	1148	1138	1138	1143	1154	1171	1210	1217	1213	1200	1183	1170	1164	1162	1150
2	1162	1162	1161	1160	1159	1151	1143	1143	1148	1143	1134	1127	1124	1135	1142	1153	1159	1167	1171	1170	1165	1160	1158	1139	1151
3	1138	1137	1139	1144	1150	1153	1155	1159	1161	1159	1151	1144	1138	1143	1147	1159	1170	1176	1175	1170	1163	1159	1158	1155	1154
4 *q*	1154	1153	1155	1158	1159	1159	1159	1155	1150	1140	1131	1118	1117	1130	1132	1139	1148	1160	1165	1164	1166	1160	1159	1158	1150
5	1158	1156	1157	1156	1156	1154	1152	1148	1143	1129	1121	1115	1119	1131	1139	1152	1164	1164	1160	1160	1159	1154	1154	1154	1148
6	1154	1154	1154	1155	1160	1162	1160	1150	1143	1139	1132	1126	1122	1126	1142	1151	1155	1163	1167	1167	1165	1160	1158	1159	1151
7	1156	1156	1159	1159	1162	1162	1159	1153	1149	1141	1135	1131	1136	1142	1148	1146	1154	1163	1166	1170	1163	1161	1159	1154	1153
8	1150	1153	1154	1155	1159	1159	1158	1155	1152	1147	1142	1137	1135	1142	1147	1152	1155	1162	1166	1166	1171	1171	1164	1155	1154
9	1136	1130	1124	1136	1144	1156	1160	1156	1151	1141	1134	1142	1145	1148	1149	1153	1163	1165	1166	1166	1164	1162	1160	1157	1150
10	1150	1148	1150	1150	1151	1155	1159	1159	1154	1145	1142	1138	1139	1140	1148	1148	1150	1154	1159	1159	1156	1154	1152	1152	1151
11	1153	1154	1154	1154	1155	1157	1159	1152	1148	1144	1135	1126	1127	1131	1137	1147	1150	1155	1160	1160	1160	1156	1152	1149	1149
12	1148	1150	1153	1154	1156	1159	1154	1151	1148	1138	1132	1120	1116	1125	1136	1146	1152	1155	1160	1161	1162	1156	1152	1148	1147
13	1133	1134	1141	1142	1136	1131	1131	1135	1136	1134	1131	1128	1131	1135	1147	1159	1170	1172	1176	1177	1176	1166	1159	1155	1147
14	1154	1154	1154	1155	1159	1160	1162	1159	1151	1137	1126	1120	1121	1124	1133	1143	1155	1171	1174	1169	1162	1155	1154	1153	1150
15 *q*	1152	1153	1154	1156	1155	1153	1156	1155	1151	1144	1142	1139	1145	1148	1147	1146	1149	1154	1155	1157	1155	1154	1153	1151	1151
16 *q*	1150	1150	1151	1154	1154	1159	1155	1148	1138	1136	1132	1131	1131	1138	1142	1143	1146	1150	1154	1154	1154	1154	1150	1148	1147
17	1148	1149	1149	1152	1154	1153	1148	1147	1137	1137	1132	1127	1126	1133	1140	1146	1156	1171	1178	1182	1171	1163	1158	1158	1151
18 *d*	1155	1151	1140	1139	1141	1148	1149	1147	1143	1133	1131	1126	1129	1134	1140	1150	1170	1181	1179	1177	1179	1176	1167	1166	1152
19 *d*	1160	1148	1137	1123	1125	1127	1123	1124	1127	1129	1130	1136	1146	1159	1163	1162	1159	1156	1159	1156	1155	1156	1159	1159	1145
20	1153	1140	1140	1148	1153	1154	1159	1164	1156	1150	1148	1149	1147	1143	1142	1146	1159	1172	1177	1173	1163	1162	1159	1153	*1155*
21 *d*	1153	1150	1146	1131	1137	1150	1156	1152	1145	1141	1130	1126	1130	1130	1134	1150	1164	1181	1197	1199	1191	1178	1163	1131	1153
22	1125	1133	1107	1085	1092	1102	1119	1130	1142	1132	1122	1124	1127	1140	1150	1154	1160	1162	1160	1159	1158	1155	1154	1152	*1135*
23	1152	1152	1152	1154	1155	1158	1158	1158	1152	1148	1142	1127	1125	1131	1142	1148	1154	1159	1160	1160	1160	1158	1153	1148	1150
24	1148	1148	1146	1143	1149	1152	1152	1151	1152	1147	1138	1131	1131	1132	1137	1143	1150	1159	1160	1157	1156	1154	1154	1152	1148
25	1148	1148	1146	1151	1154	1158	1159	1159	1154	1138	1126	1116	1116	1122	1133	1143	1157	1162	1164	1165	1154	1154	1148	1140	1146
26 *d*	1126	1097	1107	1134	1148	1155	1150	1152	1154	1143	1137	1130	1131	1134	1150	1177	1194	1182	1176	1166	1170	1168	1155	1154	1150
27	1151	1153	1154	1155	1158	1156	1150	1152	1147	1142	1134	1131	1131	1135	1142	1158	1166	1171	1170	1164	1160	1156	1153	1152	1152
28 *q*	1152	1153	1153	1155	1156	1159	1154	1148	1142	1132	1126	1123	1125	1137	1145	1154	1154	1154	1151	1150	1151	1151	1150	1150	1147
29 *q*	1150	1150	1150	1150	1150	1150	1150	1153	1152	1148	1140	1123	1120	1123	1131	1140	1150	1159	1160	1159	1154	1151	1150	1150	1146
30	1150	1150	1151	1154	1156	1159	1154	1151	1149	1139	1132	1127	1131	1136	1150	1166	1178	1182	1166	1168	1164	1160	1155	1153	1153
Mean	1149	1146	1145	1145	1147	1150	1151	1150	1147	1141	1135	*1129*	1130	1136	1143	1151	1161	1167	*1168*	1167	1164	1160	1156	1152	1150

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

116 ESKDALEMUIR — JUNE

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination				Vertical force						
	Maximum 16,000γ +		Minimum 16,000γ +		Range	Maximum 11° +		Minimum 11° +		Range	Maximum 44,000γ +		Minimum 44,000γ +		Range				
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ				°A.
1 *d*	15 47	651	*454*	10 16	*197*	15 36	*63·1*	*30·3*	7 43	*32·8*	18 0	*1217*	*1074*	4 19	*143*	3,4,4,3,5,4,3,2	28	1	83·7
2	23 16	585	491	11 1	94	14 6	57·1	42·0	8 35	15·1	18 40	1172	1121	12 15	51	1,2,3,2,2,2,2,3	17	1	83·7
3	16 57	593	501	10 38	92	14 28	58·8	41·8	1 0	17·0	17 40	1178	1135	0 1	43	2,2,1,2,3,3,2,1	16	0	83·7
4 *q*	20 26	597	487	10 22	110	12 32	59·6	41·1	5 42	18·5	20 10	1167	1113	11 55	54	1,1,2,1,2,2,2,2	13	0	84·0
5	18 21	600	488	10 46	112	13 10	58·4	40·4	7 25	18·0	16 50	1166	1113	11 40	53	2,2,2,3,3,3,2,2	19	1	84·1
6	18 43	602	493	10 59	109	14 20	59·2	41·2	6 33	18·0	19 17	1167	1120	12 34	47	0,2,2,2,2,2,2,1	13	0	84·1
7	16 23	609	512	10 49	97	16 24	57·1	38·9	7 33	18·2	19 11	1171	1130	11 32	41	1,1,1,2,2,3,2,2	14	1	83·9
8	19 24	612	491	11 0	121	14 12	61·1	37·8	7 23	23·3	20 52	1176	1131	12 22	45	1,2,1,3,3,3,3,2	18	1	84·2
9	18 38	603	511	10 13	92	14 21	57·4	39·6	7 3	17·8	19 55	1168	1123	0 50	45	3,2,2,1,2,3,2,2	17	1	84·0
10	18 49	590	486	11 10	104	14 15	57·6	42·1	9 5	15·5	19 32	1160	1137	11 55	23	1,2,1,2,3,2,1,0	12	1	84·0
11	19 5	635	507	11 15	128	14 4	60·2	42·3	7 8	17·9	20 0	1163	1125	12 10	38	1,1,1,2,1,2,3,1	12	1	84·1
12	19 48	608	502	10 18	106	13 39	55·5	37·6	7 48	17·9	20 35	1164	1114	12 33	50	1,3,1,2,2,2,2,3	16	0	83·9
13	18 49	630	503	12 50	127	13 47	57·6	41·4	7 34	16·2	20 0	1179	1127	1 8	52	3,3,2,2,3,4,4,1	22	1	83·8
14	16 37	619	508	11 14	111	13 18	56·8	40·9	7 43	15·9	18 30	1176	1119	12 0	57	0,0,1,1,1,3,2,0	8	0	83·8
15 *q*	17 8	579	515	11 28	64	13 41	54·3	42·3	7 23	12·0	19 37	1158	1138	11 13	*20*	0,1,1,1,1,1,1,0	6	0	83·8
16 *q*	22 32	587	524	11 18	*63*	14 33	55·5	43·8	7 22	11·7	5 48	1160	1127	12 9	33	0,0,1,0,1,1,0,1	4	0	83·8
17	16 30	639	522	11 31	117	14 19	58·3	38·5	6 26	19·8	19 14	1183	1123	12 20	60	2,2,1,2,2,4,3,3	19	1	83·8
18 *d*	19 3	625	478	10 40	147	15 4	61·1	35·8	5 38	25·3	17 10	1183	1120	11 49	63	2,2,1,3,4,3,3,2	20	1	83·8
19 *d*	19 4	581	471	9 42	110	12 35	58·5	32·6	1 25	25·9	14 31	1165	1116	3 6	49	4,3,3,3,2,2,3,2	22	1	83·8
20	15 49	612	487	10 52	125	15 24	62·9	37·2	5 42	25·7	18 42	1178	1132	1 55	46	3,2,1,2,2,3,3,3	19	1	83·8
21 *d*	18 13	643	472	10 20	171	14 30	62·0	34·8	7 48	27·2	19 12	1200	1100	23 55	100	2,3,2,4,4,4,4,4	27	1	83·9
22	20 7	583	482	10 7	101	15 16	47·6	37·0	6 33	*10·6*	17 23	1164	1082	3 43	82	4,3,3,2,2,2,2,2	20	1	83·9
23	19 25	600	487	10 0	113	13 30	61·9	38·5	8 3	23·4	19 49	1164	1124	12 20	40	1,1,1,3,3,2,3,2	16	0	84·0
24	19 25	611	498	10 30	113	14 5	60·0	37·4	6 41	22·6	18 10	1164	1130	11 22	34	2,1,2,2,2,2,3,2	16	1	84·1
25	20 23	654	522	9 39	132	13 30	61·4	34·9	22 23	26·5	19 41	1166	1114	11 53	52	2,1,2,2,3,2,4,4	20	1	84·1
26 *d*	15 35	*659*	495	10 16	164	15 32	55·6	39·5	8 3	16·1	16 10	1199	1092	1 43	107	3,3,3,3,4,5,3,3	27	1	83·9
27	17 14	601	486	11 19	115	14 17	57·4	35·1	7 21	22·3	17 53	1172	1129	11 5	43	2,2,3,3,3,3,2,1	19	1	84·0
28 *q*	19 51	583	518	8 21	65	14 41	55·8	37·4	8 21	18·4	5 39	1160	1120	12 1	40	0,0,1,2,2,1,1,0	7	0	84·0
29 *q*	17 46	586	502	10 25	84	13 33	56·1	39·7	8 4	16·4	18 42	1162	1118	12 10	44	0,1,2,2,2,2,2,1	12	0	84·0
30	17 8	592	524	9 3	68	14 6	58·4	40·9	5 52	17·5	17 51	1183	1126	11 30	57	1,1,1,1,3,3,2,1	13	1	84·0
Mean	- -	609	497	- -	112	- -	58·2	38·8	- -	19·5	- -	1173	1119	- -	54	-	-	0·67	83·9

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

117 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — JULY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	567	555	547	553	563	559	553	549	535	526	524	524	521	531	545	572	585	594	598	589	575	567	558	549	556
2	547	555	552	544	548	554	559	550	538	522	513	523	533	548	544	558	560	582	596	601	591	575	561	555	555
3	551	559	565	568	563	561	555	548	539	524	514	515	538	551	583	575	574	583	580	576	574	572	576	574	*559*
4 *d*	567	560	556	567	567	566	555	527	507	522	533	547	559	546	551	564	569	590	582	603	607	569	568	543	*559*
5	540	534	550	555	558	559	548	533	523	517	510	515	541	534	554	573	576	574	567	572	575	573	577	562	551
6	535	545	552	558	561	556	532	523	509	525	527	532	531	533	543	574	588	591	594	574	571	562	561	560	552
7	558	552	556	557	559	563	559	555	547	535	528	526	529	543	554	587	583	579	591	570	571	563	563	566	558
8	571	559	554	555	566	560	545	535	515	511	514	503	499	516	539	563	579	601	576	567	559	559	559	555	548
9	551	551	548	549	554	555	546	537	527	518	499	499	509	519	539	561	561	562	563	579	576	582	578	563	547
10	563	561	562	565	571	559	551	559	538	522	523	511	521	534	530	543	574	586	599	595	587	575	572	569	557
11	563	562	559	566	567	562	555	548	540	525	513	513	534	547	558	569	583	591	602	601	583	571	562	549	*559*
12	546	548	556	556	566	559	546	529	527	522	510	518	514	537	538	557	565	571	567	566	576	567	570	566	549
13	566	561	553	554	550	557	561	548	538	534	533	526	521	526	557	567	565	570	582	582	584	578	569	573	556
14 *d*	571	551	555	555	566	561	541	546	541	522	506	513	503	526	553	543	553	562	582	586	578	581	562	553	550
15	554	552	558	564	559	553	536	528	520	513	515	509	522	526	545	562	558	570	568	581	586	584	579	565	550
16	559	564	564	565	565	551	539	535	518	521	514	516	520	513	507	553	561	584	585	584	578	578	566	562	550
17	561	564	558	556	547	538	529	518	496	489	501	509	517	524	542	561	544	562	605	600	565	559	559	553	544
18	554	553	549	556	548	545	530	521	512	519	520	525	533	539	554	545	574	582	581	580	574	567	564	560	549
19 *q*	556	560	560	552	552	550	537	527	515	509	508	509	518	530	533	547	550	565	568	569	570	571	569	568	546
20 *q*	565	566	561	558	558	558	554	539	536	492	492	507	524	538	558	568	574	592	592	596	582	576	573	563	555
21	569	561	556	562	561	555	542	526	518	510	513	526	530	538	550	562	569	581	593	601	597	573	561	555	555
22 *q*	556	560	557	561	558	557	540	536	530	514	510	512	510	526	549	570	570	581	578	576	577	572	570	570	552
23 *q*	568	562	562	561	562	555	544	533	506	495	502	511	533	546	561	569	559	567	576	578	578	578	574	573	552
24 *q*	560	561	561	559	568	566	559	543	529	509	507	518	530	546	560	566	566	565	570	573	578	573	574	572	555
25	570	566	570	567	562	562	554	550	542	532	522	531	542	541	542	554	554	578	561	570	566	566	566	566	556
26	560	557	558	559	565	562	553	546	534	531	522	519	526	539	565	558	557	578	583	585	581	577	566	553	556
27	555	559	554	557	550	553	539	534	525	514	516	526	530	530	542	566	566	579	584	574	569	564	563	566	551
28	554	553	552	550	548	544	542	544	539	526	524	527	528	541	548	553	563	605	605	582	581	581	565	558	555
29 *d*	542	545	558	553	551	562	536	528	522	498	472	479	471	516	526	544	565	561	575	574	566	562	558	556	*538*
30 *d*	554	554	556	556	554	551	539	537	520	516	509	514	520	532	518	532	558	564	578	606	577	574	570	574	548
31 *d*	547	546	533	552	552	556	546	526	507	523	519	499	534	533	550	549	566	561	564	567	571	555	560	553	545
Mean	557	556	556	558	559	556	546	537	526	517	*513*	516	524	534	546	560	567	578	582	*583*	577	571	567	561	552

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

118 ESKDALEMUIR (D) — 11° + — JULY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	51·0	49·8	47·8	42·5	44·3	43·0	40·7	40·5	40·5	44·8	47·2	49·9	53·8	55·4	55·7	54·9	53·4	51·8	50·1	50·5	50·1	50·1	48·8	47·1	48·5
2	47·1	45·8	43·6	42·5	41·5	41·1	42·2	42·1	42·8	44·7	49·2	52·3	54·3	56·9	55·7	55·5	53·0	52·3	51·1	49·7	51·7	51·3	50·2	48·3	48·5
3	46·2	45·1	44·7	44·8	44·2	39·6	39·4	39·6	42·2	45·7	48·0	52·6	57·5	61·5	61·7	57·3	57·1	54·9	53·3	52·0	51·8	51·1	51·0	49·4	49·6
4 *d*	49·3	47·8	47·5	45·9	44·1	42·5	41·8	41·0	44·2	48·3	49·5	53·3	55·0	52·9	53·4	53·4	52·5	53·9	49·7	51·2	46·7	43·0	49·3	44·8	48·4
5	42·3	38·9	41·6	45·3	44·1	43·0	41·9	40·2	41·0	43·9	47·3	52·1	56·7	57·5	58·5	57·3	54·4	53·6	51·5	50·8	50·4	50·4	50·2	50·5	48·5
6	46·4	44·0	44·8	45·6	44·5	43·6	40·6	40·3	41·1	43·3	44·6	47·4	50·8	53·7	53·8	53·0	52·1	50·9	49·5	49·3	48·9	48·6	48·7	48·5	*47·3*
7	47·8	47·5	46·9	45·6	45·3	43·0	40·4	40·5	41·2	43·1	47·6	50·7	54·4	55·5	56·3	56·1	54·6	52·1	50·7	50·0	49·9	49·5	49·3	49·2	48·6
8	49·8	47·1	45·9	43·9	43·9	45·0	46·8	46·4	46·3	46·5	46·4	50·5	54·5	57·0	57·7	57·4	53·9	49·8	48·3	48·2	49·2	49·4	48·6	48·5	49·2
9	47·9	47·9	46·8	45·4	44·1	42·2	40·4	39·7	39·5	42·0	46·4	50·6	53·3	55·7	57·7	56·7	53·9	51·8	49·8	48·6	49·1	49·2	48·6	49·1	48·2
10	49·7	49·8	49·3	48·1	49·5	49·5	46·8	43·8	42·2	44·1	46·6	52·0	55·6	57·4	55·8	55·8	54·9	51·9	47·9	49·3	49·5	49·8	49·3	48·8	49·9
11	48·2	47·4	46·6	45·9	43·8	42·5	41·9	41·1	41·2	42·9	45·6	50·2	53·9	56·3	57·1	56·8	54·9	52·2	50·3	50·8	50·0	48·5	46·7	43·5	48·3
12	46·0	45·3	44·1	42·0	42·5	42·5	41·5	41·2	40·4	42·2	45·0	48·8	51·8	54·9	55·6	55·6	54·0	51·1	49·5	48·7	49·3	50·3	50·7	49·9	47·6
13	49·7	47·7	48·3	48·4	49·3	47·6	43·8	40·7	40·9	43·5	47·4	51·1	52·4	53·1	54·3	54·3	52·1	52·6	52·0	50·1	49·6	51·8	51·5	51·9	49·3
14 *d*	52·0	44·2	38·8	41·8	42·8	40·4	40·6	42·5	42·1	44·0	47·4	51·0	53·0	54·6	54·9	53·0	52·9	52·5	51·5	51·1	50·2	48·7	49·3	49·4	47·9
15	45·7	43·5	43·2	43·9	43·4	40·1	38·8	40·3	41·4	44·6	48·4	52·3	54·5	55·4	55·3	53·0	53·6	53·6	52·3	51·5	49·6	51·5	51·1	48·8	48·2
16	47·6	46·3	44·5	45·7	43·4	41·7	40·5	39·1	38·7	45·1	46·2	49·8	54·9	57·9	56·5	55·3	52·2	50·4	50·0	50·3	50·7	50·9	49·3	49·0	48·2
17	48·3	48·0	45·0	39·2	38·8	39·7	41·5	40·6	41·4	46·6	48·9	52·6	55·2	55·6	55·0	54·0	53·0	54·1	51·7	47·8	50·4	50·6	50·6	49·3	48·2
18	47·9	46·8	46·7	44·2	41·1	41·7	40·4	40·0	42·4	46·1	49·9	53·6	56·0	55·7	54·7	52·2	53·1	52·5	50·4	49·5	49·7	50·1	49·8	49·7	48·5
19 *q*	48·0	46·4	43·5	44·1	42·5	40·5	39·1	38·6	39·5	43·3	48·5	52·6	56·5	56·9	55·0	53·2	50·9	50·1	49·5	49·7	49·7	49·7	49·0	48·8	47·7
20 *q*	47·1	47·1	44·4	45·3	45·2	43·0	40·8	40·2	40·5	44·2	48·3	54·5	59·5	59·9	57·4	54·1	52·2	51·3	51·2	51·3	50·9	50·8	49·6	48·9	49·1
21	47·1	43·9	43·8	45·0	43·7	40·8	39·0	40·3	41·5	46·1	48·2	53·0	56·7	57·3	55·6	53·3	52·5	52·3	51·3	50·7	46·6	46·1	47·7	46·9	47·9
22 *q*	46·9	45·8	46·9	47·3	45·3	41·7	43·1	43·2	42·5	43·0	47·5	52·8	55·6	56·6	56·4	53·7	51·1	50·0	48·5	48·5	49·1	50·2	50·3	50·2	48·6
23 *q*	49·9	48·4	48·4	46·6	43·9	40·3	38·4	37·7	39·4	44·0	48·2	52·6	55·4	54·8	53·1	52·7	50·6	50·0	50·2	50·9	51·1	50·3	50·2	50·7	48·2
24 *q*	48·5	47·7	47·0	48·6	44·7	40·4	40·2	40·3	41·4	43·9	49·0	53·7	56·5	56·9	55·0	52·2	48·8	48·1	48·4	49·1	50·0	49·5	49·0	49·7	48·3
25	48·8	48·2	50·1	45·5	42·8	42·3	40·4	40·4	41·0	45·0	48·6	53·7	56·4	54·0	52·5	50·9	50·3	50·3	49·4	50·3	50·6	50·3	51·1	51·1	48·5
26	47·9	46·1	46·5	46·6	46·5	43·9	43·5	44·6	42·0	42·8	45·9	48·6	51·8	53·5	54·2	53·0	50·4	50·9	50·8	49·9	49·6	50·9	46·7	47·5	48·1
27	46·8	45·7	44·9	44·0	43·0	41·4	38·6	40·3	41·8	44·9	49·4	53·3	55·5	57·1	57·3	55·8	54·2	52·3	51·3	50·1	50·2	49·5	48·9	47·8	48·5
28	46·6	45·9	45·9	45·0	44·0	42·0	42·1	42·4	42·8	44·8	47·5	51·3	54·7	54·4	53·5	52·5	51·2	52·0	51·9	51·1	50·5	50·2	48·5	46·4	48·2
29 *d*	43·0	44·5	46·9	48·3	51·2	49·4	44·0	49·9	48·4	48·3	49·4	56·1	60·5	62·9	62·1	57·5	55·1	54·3	52·7	52·4	52·5	51·6	49·0	48·1	*51·6*
30 *d*	47·5	48·1	51·1	49·2	46·1	43·3	46·6	44·3	44·1	44·1	45·4	48·6	52·2	54·5	54·2	53·4	53·0	52·8	51·4	49·0	40·2	49·3	49·6	48·5	48·6
31 *d*	47·3	40·8	43·9	47·6	49·7	43·9	42·5	47·6	46·5	49·4	50·3	51·5	52·5	54·2	55·3	52·0	51·1	48·3	48·8	48·7	50·1	52·0	51·0	51·0	49·0
Mean	47·7	46·2	45·8	45·3	44·5	42·6	*41·6*	41·6	42·0	44·7	47·7	51·7	54·9	*56·1*	55·9	54·4	52·8	51·8	50·5	50·0	49·6	49·9	49·5	48·7	48·6

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

119 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — JULY

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	1151	1151	1146	1135	1134	1135	1142	1143	1148	1143	1133	1131	1132	1135	1139	1147	1155	1163	1169	1171	1171	1166	1160	1159	1148
2	1156	1152	1144	1147	1150	1154	1151	1150	1147	1142	1138	1130	1132	1137	1141	1143	1154	1160	1163	1170	1167	1163	1158	1158	1150
3	1158	1156	1154	1154	1156	1159	1157	1153	1151	1143	1132	1121	1124	1135	1144	1161	1171	1175	1171	1163	1154	1153	1152	1151	1152
4 *d*	1148	1149	1150	1151	1154	1155	1154	1154	1154	1144	1135	1124	1122	1127	1139	1153	1164	1155	1178	1166	1159	1159	1155	1130	1149
5	1113	1115	1127	1144	1151	1159	1160	1157	1152	1146	1142	1132	1126	1139	1145	1154	1171	1172	1166	1159	1155	1154	1151	1131	1147
6	1127	1138	1148	1154	1159	1164	1164	1159	1156	1143	1138	1138	1143	1148	1150	1156	1164	1163	1164	1162	1156	1154	1153	1153	1152
7	1154	1153	1152	1154	1154	1152	1146	1143	1136	1126	1126	1126	1131	1137	1142	1152	1162	1169	1167	1161	1159	1158	1154	1153	1149
8	1148	1147	1137	1137	1138	1142	1144	1143	1143	1143	1143	1143	1144	1148	1159	1171	1182	1189	1188	1176	1166	1159	1156	1154	1154
9	1155	1155	1157	1157	1160	1160	1159	1155	1150	1148	1144	1143	1140	1140	1140	1149	1165	1170	1171	1165	1160	1157	1151	1151	1154
10	1151	1152	1154	1155	1157	1160	1152	1143	1140	1132	1131	1132	1133	1148	1165	1175	1181	1196	1206	1188	1171	1161	1156	1155	*1158*
11	1154	1154	1155	1155	1154	1154	1153	1152	1150	1140	1133	1132	1131	1137	1144	1151	1159	1162	1168	1172	1172	1165	1156	1151	1152
12	1141	1137	1132	1129	1130	1136	1143	1149	1148	1145	1144	1138	1138	1144	1149	1150	1149	1155	1162	1166	1161	1157	1154	1154	1146
13	1150	1149	1151	1149	1147	1140	1141	1143	1140	1137	1132	1128	1143	1149	1145	1151	1160	1156	1160	1160	1161	1156	1155	1152	1148
14 *d*	1144	1121	1128	1132	1137	1143	1146	1144	1147	1148	1144	1133	1137	1141	1149	1160	1163	1159	1155	1156	1157	1155	1145	1144	1145
15	1139	1137	1137	1137	1140	1144	1139	1133	1125	1119	1114	1115	1124	1134	1141	1151	1153	1157	1160	1157	1158	1155	1141	1137	*1139*
16	1134	1135	1141	1145	1146	1145	1141	1142	1144	1143	1141	1136	1139	1151	1140	1144	1156	1164	1163	1159	1158	1149	1149	1149	1146
17	1149	1144	1129	1124	1125	1132	1135	1140	1144	1139	1139	1137	1140	1141	1147	1152	1161	1163	1164	1170	1168	1157	1153	1153	1146
18	1154	1155	1153	1141	1140	1148	1151	1149	1143	1136	1133	1130	1128	1136	1141	1152	1153	1155	1154	1159	1159	1156	1153	1152	1147
19 *q*	1151	1141	1136	1141	1145	1147	1152	1147	1141	1129	1127	1127	1132	1136	1141	1141	1146	1147	1150	1149	1151	1151	1151	1151	1143
20 *q*	1150	1149	1142	1144	1147	1148	1148	1147	1142	1132	1118	1112	1111	1124	1137	1144	1146	1146	1152	1154	1156	1152	1148	1149	1142
21	1133	1137	1144	1149	1154	1157	1155	1153	1149	1134	1124	1116	1120	1132	1139	1143	1146	1149	1153	1156	1165	1165	1154	1153	1145
22 *q*	1150	1148	1147	1144	1146	1150	1154	1150	1141	1138	1133	1133	1138	1144	1145	1149	1155	1157	1161	1161	1156	1150	1150	1150	1148
23 *q*	1150	1150	1150	1153	1155	1156	1156	1152	1145	1138	1129	1126	1128	1145	1152	1152	1157	1155	1150	1150	1149	1150	1150	1147	1148
24 *q*	1146	1145	1145	1145	1142	1148	1153	1152	1150	1145	1139	1136	1129	1134	1146	1150	1156	1159	1157	1154	1152	1152	1151	1151	1147
25	1150	1150	1150	1150	1155	1156	1146	1144	1140	1136	1128	1116	1121	1144	1152	1161	1168	1169	1172	1164	1161	1155	1152	1150	1150
26	1150	1151	1150	1154	1152	1150	1149	1141	1135	1129	1129	1131	1128	1134	1140	1151	1151	1155	1157	1162	1158	1151	1151	1151	1146
27	1150	1150	1151	1152	1156	1150	1145	1137	1132	1127	1118	1110	1114	1127	1130	1135	1141	1154	1158	1157	1156	1150	1146	1145	1141
28	1149	1150	1150	1150	1150	1150	1150	1145	1138	1137	1128	1125	1121	1121	1126	1131	1137	1139	1145	1146	1146	1146	1146	1146	1141
29 *d*	1142	1145	1142	1141	1128	1119	1127	1123	1126	1129	1128	1130	1141	1140	1153	1168	1178	1184	1178	1170	1162	1158	1156	1154	1147
30 *d*	1153	1152	1145	1136	1138	1144	1139	1137	1138	1137	1134	1127	1126	1131	1148	1149	1156	1156	1156	1166	1188	1169	1156	1145	1147
31 *d*	1116	1105	1082	1112	1109	1114	1138	1141	1139	1140	1144	1154	1156	1166	1168	1184	1191	1209	1201	1184	1175	1165	1161	1152	1150
Mean	1146	1144	1143	1144	1145	1147	1148	1146	1143	1138	1133	*1129*	1131	1139	1145	1153	1160	1163	*1165*	1163	1161	1156	1152	1149	1148

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

120 ESKDALEMUIR — JULY

	TERRESTRIAL MAGNETIC ELEMENTS																3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination					Vertical force									
	Maximum 16,000γ +		Minimum 16,000γ +		Range	Maximum 11° +		Minimum 11° +		Range	Maximum 44,000γ +		Minimum 44,000γ +		Range				
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ					°A.
1	18 40	607	517	12 59	90	14 6	57·0	38·6	6 38	18·4	20 0	1172	1131	11 50	41	3,2,2,0,2,2,3,2	16	1	84·0
2	19 33	606	508	10 42	98	13 50	57·5	39·9	5 31	17·6	19 50	1171	1127	11 20	44	2,1,1,2,2,2,2,3	15	0	84·0
3	15 3	603	503	11 5	100	14 19	62·8	38·3	8 2	*24·5*	17 59	1177	1119	11 49	58	2,2,2,2,3,3,2,2	18	1	84·0
4 *d*	20 34	621	496	8 30	125	12 22	57·0	36·9	23 55	20·1	18 6	1180	1098	24 0	82	2,1,3,3,4,4,4,5	26	1	84·0
5	17 35	599	503	10 20	96	15 10	60·0	36·5	1 59	23·5	16 54	1177	1096	0 3	81	3,2,1,2,3,4,2,4	21	1	84·0
6	18 0	602	494	8 10	108	13 22	54·5	36·8	7 33	17·7	18 43	1166	1118	0 1	48	3,1,3,3,2,3,3,0	18	1	84·0
7	18 28	607	520	11 34	87	15 15	56·7	38·0	6 33	18·7	17 38	1171	1124	9 40	47	1,2,2,2,2,3,3,1	16	1	84·1
8	17 23	607	491	12 5	116	14 5	58·1	42·8	4 41	15·3	18 6	1193	1136	3 9	57	2,2,2,2,3,3,2,0	16	1	84·1
9	22 14	596	483	10 55	113	14 10	58·4	38·5	7 41	19·9	18 10	1173	1138	14 0	35	0,1,1,3,2,2,2,3	14	0	84·1
10	18 15	619	495	11 39	124	13 31	58·4	40·8	8 21	17·6	18 32	1208	1129	10 20	79	1,2,3,3,3,3,3,1	19	1	84·1
11	18 4	610	506	11 10	104	14 32	57·5	39·4	8 10	18·1	20 20	1172	1130	12 20	42	1,1,2,2,2,3,2,3	16	1	84·1
12	18 3	578	502	12 28	76	15 35	56·2	39·4	8 38	16·8	19 15	1167	1127	4 10	40	2,2,2,2,3,1,2,1	15	1	84·1
13	19 49	597	513	13 3	84	15 20	55·2	38·6	8 7	16·6	20 19	1165	1126	11 35	39	2,2,3,2,3,2,2,1	17	1	84·1
14 *d*	19 26	599	492	11 7	107	15 9	56·4	37·0	2 58	19·4	15 49	1165	1109	1 25	56	4,3,3,3,3,2,2,3	23	1	84·2
15	20 5	599	504	11 42	95	14 26	56·5	36·8	6 33	19·7	18 10	1161	1113	11 5	48	2,2,1,2,2,2,3,3	17	1	84·2
16	20 14	597	481	14 0	116	13 27	59·3	36·4	8 33	22·9	17 40	1168	1132	1 4	36	2,3,3,1,4,3,2,2	20	1	84·2
17	18 44	612	487	9 33	125	12 48	56·3	37·3	4 28	19·0	19 0	1171	1121	4 10	50	3,2,2,3,3,3,3,2	21	1	84·2
18	17 50	592	508	8 48	84	12 34	56·3	39·3	7 24	17·0	20 10	1159	1124	12 9	35	1,2,1,2,2,3,2,0	13	0	84·3
19 *q*	23 54	573	506	10 12	*67*	13 10	57·6	37·6	7 15	20·0	6 33	1153	1126	11 20	*27*	2,0,1,2,1,1,0,0	7	0	84·3
20 *q*	17 5	607	486	10 0	121	13 16	60·5	39·9	7 37	20·6	20 32	1157	1109	12 6	48	2,1,2,3,2,2,2,2	16	1	84·2
21	20 16	627	502	9 53	125	13 17	58·4	38·4	6 47	20·0	21 0	1169	1115	11 49	54	3,1,1,2,2,2,4,3	18	1	84·1
22 *q*	17 50	585	502	11 23	83	13 52	57·0	40·5	5 50	16·5	18 57	1162	1129	11 10	33	2,2,2,2,2,2,1,0	13	0	84·3
23 *q*	19 46	582	493	9 28	89	12 58	56·1	37·4	8 13	18·7	16 22	1159	1125	11 49	34	0,2,3,2,2,2,1,2	14	0	84·3
24 *q*	20 6	579	502	10 22	77	13 29	57·1	39·5	7 31	17·6	17 33	1161	1128	12 42	33	1,3,1,2,2,2,1,1	13	0	84·4
25	17 42	586	512	11 0	74	12 20	56·7	38·5	8 10	18·2	18 25	1173	1110	11 51	63	1,2,1,2,2,3,2,1	14	0	84·4
26	17 12	607	510	11 10	97	14 42	54·8	40·9	8 47	*13·9*	19 40	1162	1122	10 8	40	1,1,2,2,3,4,3,3	19	1	84·4
27	18 1	595	510	10 15	85	15 17	57·9	37·1	6 26	20·8	19 0	1160	1109	11 46	51	1,1,2,2,1,3,2,2	14	0	84·4
28	17 39	*646*	521	10 19	125	13 10	58·6	41·2	6 40	17·4	5 13	1153	1120	13 40	33	1,0,2,0,1,4,3,3	14	0	84·4
29 *d*	18 47	593	*458*	10 57	135	14 9	*63·6*	39·8	0 33	23·8	17 30	1185	1116	5 48	69	3,2,3,3,4,3,3,2	23	1	84·4
30 *d*	19 40	616	506	10 35	110	13 42	56·0	36·5	20 20	19·5	20 25	1196	1121	24 0	75	2,3,2,3,3,3,3,3	22	1	84·6
31 *d*	14 55	614	474	11 16	*140*	14 58	58·4	*34·8*	1 59	23·6	17 47	*1215*	*1068*	2 45	*147*	4,4,3,3,4,4,3,2	27	1	84·5
Mean	- -	602	500	- -	102	- -	57·6	38·5	- -	19·1	- -	1172	1119	- -	52	-	-	0·68	84·2

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

121 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — AUGUST

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	546	550	554	545	558	542	534	518	504	505	489	513	518	533	545	551	550	553	564	576	574	562	546	542	541
2	549	553	555	550	552	551	514	530	526	506	490	514	539	518	535	546	543	554	553	566	570	562	557	557	541
3	556	550	551	553	551	554	546	526	526	533	526	534	533	546	553	537	553	570	566	566	569	555	556	554	549
4	553	556	558	548	554	554	550	538	526	513	481	512	493	545	574	556	564	586	598	571	558	554	550	549	548
5	550	547	546	543	549	554	545	531	520	516	514	509	521	532	540	548	549	564	566	565	562	558	558	558	544
6	558	558	557	557	550	545	546	539	526	507	504	506	520	537	574	578	519	546	561	562	562	561	561	561	546
7	561	560	562	576	597	578	565	560	539	521	514	532	537	530	522	550	554	555	560	566	569	573	569	601	*556*
8 *d*	565	558	558	577	570	471	365	276	316	365	402	464	522	721	648	672	549	519	542	581	517	353	476	417	*500*
9 *d*	462	471	458	456	477	506	501	474	463	455	450	454	466	522	497	513	549	586	607	604	589	573	499	518	506
10 *d*	510	515	529	537	538	513	446	407	395	470	482	486	498	497	527	587	616	689	685	586	526	537	514	510	525
11 *d*	494	513	508	505	508	510	514	498	494	499	509	506	498	496	517	521	533	546	566	561	552	545	551	534	520
12	537	530	512	532	536	521	502	454	474	485	486	505	506	518	546	543	554	584	577	581	562	529	542	514	526
13	521	518	536	504	507	519	514	501	493	487	490	501	506	521	534	526	529	540	559	559	550	546	542	537	523
14	533	534	534	530	532	530	525	520	515	506	502	513	498	514	543	572	583	582	562	570	554	546	549	553	537
15	534	531	538	546	541	533	522	518	516	506	506	502	513	531	546	557	557	567	570	559	557	547	549	538	537
16 *q*	538	535	534	540	533	529	522	520	514	505	503	507	517	524	532	542	550	550	553	555	552	554	551	550	534
17 *q*	546	543	546	548	546	542	537	530	522	518	520	520	528	533	537	542	561	570	563	554	556	557	555	546	543
18 *q*	543	554	550	550	546	540	532	522	516	508	513	524	532	538	546	552	556	562	569	567	561	554	557	558	544
19	552	548	546	546	543	541	534	527	519	504	499	504	518	524	526	538	551	563	568	596	603	602	594	595	548
20 *d*	546	513	504	520	525	526	533	540	521	496	499	498	532	539	502	530	556	558	555	571	571	547	548	546	532
21	536	535	536	534	546	542	541	533	519	500	487	486	510	530	525	551	528	526	546	546	562	545	546	540	531
22	537	538	539	541	535	537	534	523	511	489	497	502	512	523	528	535	554	557	558	567	560	571	535	534	534
23	544	568	560	530	537	538	534	523	514	506	507	521	524	541	546	540	548	558	558	566	560	558	554	558	541
24	550	554	558	559	546	534	534	526	512	510	516	523	522	524	542	537	553	546	564	566	566	556	550	546	541
25	546	552	553	544	552	547	541	532	523	509	499	503	512	529	532	540	553	555	563	569	573	550	538	541	540
26 *q*	543	545	550	548	546	542	537	533	527	512	508	509	521	528	537	547	555	560	565	564	561	557	557	558	542
27 *q*	556	555	554	552	552	549	549	542	537	526	514	517	523	531	541	550	561	549	563	566	572	568	563	557	548
28	557	557	558	562	561	559	555	549	533	517	511	520	523	536	553	564	567	561	563	573	569	548	534	557	549
29	541	534	547	561	565	557	537	512	525	506	522	543	529	536	557	557	590	540	553	549	552	547	553	546	544
30	527	528	537	549	541	549	542	526	508	493	493	507	497	497	507	517	538	555	557	551	553	536	533	538	528
31	545	543	547	550	544	536	537	525	511	504	508	515	517	536	525	528	540	556	561	561	557	559	561	560	539
Mean	540	540	541	542	543	537	525	511	505	499	*498*	508	516	533	540	549	554	561	*568*	567	561	549	547	544	537

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

122 ESKDALEMUIR (D) — 11° + — AUGUST

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	48·6	46·7	49·1	45·8	48·7	43·9	44·3	43·0	45·4	45·9	50·0	53·9	54·5	53·0	52·0	50·4	49·5	48·8	49·4	48·7	50·7	49·0	45·7	45·5	48·4
2	49·1	48·9	46·8	45·4	44·6	43·3	50·2	49·7	44·6	46·6	50·1	52·5	56·4	55·5	52·8	52·1	49·3	49·4	49·8	50·3	49·7	48·7	50·2	49·6	49·4
3	49·0	48·3	47·3	47·7	46·4	45·9	45·9	46·1	47·7	47·3	50·8	52·3	53·3	54·0	52·1	49·5	49·0	47·9	47·8	49·1	49·4	47·6	49·1	49·7	48·9
4	48·7	49·1	51·1	45·2	44·5	42·9	42·2	41·9	44·6	44·6	46·6	53·9	59·1	55·6	54·9	53·0	50·2	48·1	47·0	45·8	48·8	49·7	49·6	48·3	48·6
5	47·7	48·4	48·2	48·5	46·5	41·5	39·4	38·9	40·3	44·6	48·5	51·0	53·0	54·3	52·2	50·5	49·0	48·8	48·5	48·3	47·5	47·5	47·5	47·6	47·4
6	47·6	47·5	46·9	46·5	44·2	43·8	44·5	43·5	43·9	45·9	49·6	54·9	58·2	58·4	57·9	55·7	52·9	50·7	49·3	49·1	49·1	49·3	49·1	48·4	49·5
7	48·4	48·2	47·6	49·3	48·5	46·6	47·8	46·7	44·8	47·6	50·4	53·0	55·3	53·6	50·7	49·3	47·0	46·4	46·6	47·4	47·6	49·3	50·4	50·2	48·9
8 *d*	52·5	45·8	39·9	49·5	56·6	54·0	56·6	58·2	39·4	40·6	52·9	54·3	57·2	55·6	55·6	54·7	48·7	49·5	51·2	47·7	60·1	35·4	28·0	30·8	48·9
9 *d*	39·5	35·6	28·0	30·5	41·5	38·4	38·1	36·2	37·5	40·5	46·0	52·8	56·1	57·4	58·2	59·2	57·2	48·5	50·2	48·2	45·0	39·6	50·6	49·5	*45·2*
10 *d*	40·7	46·9	40·4	40·7	42·1	45·9	43·9	68·4	49·1	50·5	48·5	52·9	54·1	55·4	58·3	61·0	53·9	56·4	56·7	47·8	51·1	53·1	50·3	45·3	*50·6*
11 *d*	46·4	46·8	45·3	44·5	43·0	42·5	41·2	40·6	42·4	43·8	46·6	51·2	52·9	52·5	52·4	50·9	50·6	50·2	49·3	46·1	45·8	48·8	50·0	46·8	47·1
12	47·1	43·0	44·0	46·6	46·7	47·5	49·6	42·1	44·6	46·9	48·4	52·6	54·7	54·2	55·5	53·1	51·1	49·8	46·6	46·6	46·7	47·0	43·9	43·1	48·0
13	37·4	38·7	46·6	45·8	48·3	44·8	39·8	39·9	39·8	43·0	45·7	49·2	52·1	52·5	53·3	50·9	49·2	48·4	47·6	47·5	47·7	47·1	46·5	46·4	46·2
14	45·8	45·6	45·4	43·3	43·7	42·1	40·9	40·7	42·2	45·5	48·6	53·5	54·1	54·2	54·3	53·1	48·9	49·6	48·4	46·7	46·9	48·4	47·6	42·8	47·2
15	42·1	43·5	45·2	46·6	45·0	43·3	41·2	41·2	42·3	43·8	45·3	48·7	52·0	54·2	54·9	53·8	52·2	50·9	49·5	48·4	47·5	47·9	46·7	46·6	47·2
16 *q*	46·4	46·0	45·7	46·0	43·3	41·9	40·4	40·1	40·1	43·5	46·6	49·3	52·7	54·7	53·3	52·1	50·3	48·5	48·1	48·3	48·0	48·0	47·6	46·5	47·0
17 *q*	45·1	45·6	45·8	46·1	45·3	43·4	42·7	43·5	44·7	46·5	49·3	54·5	55·7	54·8	53·5	52·0	51·2	50·4	49·6	49·4	48·9	48·8	44·9	45·5	48·2
18 *q*	46·2	47·4	45·1	44·6	44·0	43·1	42·5	41·1	40·8	45·1	49·4	52·9	55·1	56·0	54·3	52·2	50·2	49·5	49·4	49·1	48·6	48·4	48·0	47·0	47·9
19	46·4	45·3	45·5	44·9	43·8	42·2	41·5	41·4	42·2	43·7	46·1	50·7	55·5	56·7	55·4	53·8	52·7	51·3	49·8	50·1	51·7	49·5	40·4	41·5	47·6
20 *d*	42·4	29·1	39·0	44·0	41·4	38·3	41·1	43·0	42·7	43·6	47·4	55·6	60·5	63·6	59·0	57·3	54·6	52·1	50·6	51·2	50·8	49·4	48·0	47·6	48·0
21	44·8	43·4	43·4	43·0	42·4	40·6	39·5	41·6	41·2	43·2	47·7	53·8	60·1	61·9	63·3	59·4	53·3	49·1	48·1	47·6	48·1	44·8	40·3	45·2	47·7
22	45·5	45·8	45·3	45·2	43·2	44·0	42·6	42·9	42·7	44·8	46·4	49·3	52·4	56·3	56·8	55·1	54·1	50·5	48·6	49·4	46·7	45·8	41·2	43·8	47·4
23	45·1	46·3	43·0	33·7	41·9	41·3	40·3	39·9	39·3	41·1	45·7	50·4	54·7	57·9	58·9	55·6	52·4	49·7	47·2	46·6	46·7	46·7	46·6	43·9	46·5
24	44·2	44·7	45·6	45·2	40·7	41·6	39·8	38·1	39·5	42·8	48·5	52·7	55·6	56·4	57·3	54·9	53·0	50·3	49·0	47·3	45·8	47·7	47·8	46·8	47·3
25	46·0	46·3	44·2	44·8	45·0	43·9	41·6	42·3	41·9	44·3	47·1	49·8	53·0	56·1	55·9	54·0	51·4	49·2	48·9	46·8	43·5	44·7	44·9	47·0	47·2
26 *q*	45·9	45·8	47·1	45·3	44·8	43·7	42·4	41·6	41·7	43·0	45·6	49·3	53·3	54·9	54·8	53·9	51·8	49·4	47·6	47·1	48·1	47·6	47·5	47·5	47·5
27 *q*	47·2	47·2	46·8	46·2	45·8	43·4	42·1	41·3	41·2	43·0	45·6	49·1	51·9	53·7	54·3	53·8	51·9	49·3	48·4	48·4	48·5	47·6	46·4	47·3	47·5
28	45·9	45·2	45·7	45·9	45·7	44·9	45·6	45·6	45·9	46·6	50·2	52·3	54·5	56·8	55·8	53·8	50·5	49·8	49·1	48·0	46·3	44·0	43·4	43·1	48·1
29	42·1	45·5	48·9	46·7	44·8	42·6	41·4	41·6	42·1	47·5	49·8	52·3	57·5	57·5	58·8	53·6	51·9	48·5	48·9	42·4	45·5	45·8	42·8	44·3	47·6
30	38·8	43·1	49·4	42·4	43·2	50·2	43·5	42·6	43·2	44·8	48·4	52·1	54·8	54·1	52·4	50·1	49·0	48·1	46·8	43·4	42·2	44·8	45·1	45·3	46·6
31	44·2	45·7	47·0	46·3	46·0	45·8	44·3	43·5	42·5	45·3	49·8	53·1	55·3	55·2	53·0	51·0	49·4	48·4	47·4	47·5	46·0	48·2	46·9	43·2	47·7
Mean	45·4	45·0	45·1	44·7	44·9	43·8	43·1	43·5	*42·6*	44·7	48·1	52·1	55·0	*55·7*	55·2	53·5	51·2	49·6	48·9	47·7	48·0	47·1	46·0	45·7	47·8

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

123 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — AUGUST

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	1150	1145	1145	1150	1149	1150	1161	1161	1157	1152	1154	1153	1153	1161	1170	1168	1168	1166	1166	1168	1166	1162	1153	1150	1157
2	1142	1133	1133	1145	1154	1152	1149	1143	1150	1145	1140	1138	1141	1156	1169	1171	1179	1175	1167	1161	1161	1161	1157	1156	1153
3	1156	1156	1156	1156	1153	1150	1148	1149	1144	1136	1131	1134	1140	1145	1160	1164	1168	1178	1179	1173	1168	1164	1158	1156	1155
4	1156	1152	1145	1138	1149	1150	1150	1156	1155	1150	1143	1133	1145	1151	1166	1177	1180	1191	1206	1207	1185	1173	1166	1162	1162
5	1161	1157	1156	1152	1141	1146	1150	1150	1150	1140	1137	1136	1140	1153	1161	1164	1165	1161	1156	1156	1156	1155	1155	1155	1152
6	1154	1155	1155	1155	1155	1155	1152	1152	1149	1145	1134	1133	1140	1149	1167	1186	1192	1180	1168	1162	1159	1156	1156	1153	1157
7	1152	1153	1156	1152	1140	1138	1134	1133	1137	1134	1129	1133	1141	1154	1162	1168	1173	1173	1168	1161	1157	1151	1151	1141	1150
8 *d*	1123	1080	1081	1100	1013	1015	989	957	1008	1114	1166	1193	1224	1317	1340	1389	1309	1247	1217	1201	1115	996	1030	1002	1134
9 *d*	1001	1054	1065	1059	1046	1108	1145	1157	1161	1164	1155	1145	1150	1161	1162	1167	1191	1212	1209	1198	1184	1145	1057	1059	*1131*
10 *d*	1098	1047	1084	1109	1112	1107	1110	1064	1075	1109	1134	1142	1158	1171	1184	1219	1278	1284	1276	1279	1218	1190	1186	1184	1159
11 *d*	1179	1166	1164	1170	1173	1156	1140	1149	1156	1160	1155	1146	1145	1153	1164	1178	1181	1184	1186	1188	1189	1177	1171	1173	1167
12	1167	1141	1144	1154	1156	1156	1147	1156	1163	1162	1160	1161	1172	1179	1190	1206	1208	1217	1213	1200	1160	1167	1159	1135	1170
13	1127	1130	1141	1140	1124	1120	1143	1150	1150	1146	1144	1144	1144	1148	1155	1165	1168	1169	1170	1170	1170	1168	1165	1164	1151
14	1165	1165	1165	1166	1167	1167	1164	1162	1156	1156	1149	1140	1148	1150	1160	1173	1190	1188	1184	1184	1181	1172	1168	1158	1166
15	1156	1156	1157	1156	1160	1164	1165	1163	1160	1149	1142	1138	1144	1146	1153	1166	1169	1169	1168	1170	1170	1166	1162	1161	1159
16 *q*	1159	1158	1159	1157	1161	1165	1165	1163	1161	1152	1154	1151	1145	1146	1155	1161	1162	1163	1163	1163	1163	1163	1163	1163	1159
17 *q*	1163	1163	1163	1162	1163	1164	1162	1158	1156	1146	1139	1134	1134	1142	1151	1156	1158	1162	1165	1167	1163	1163	1163	1163	1157
18 *q*	1162	1156	1154	1158	1162	1163	1162	1161	1158	1151	1141	1136	1135	1138	1144	1155	1153	1162	1162	1164	1163	1162	1162	1161	1155
19	1161	1161	1161	1162	1163	1163	1160	1157	1155	1143	1139	1135	1128	1132	1145	1154	1157	1157	1157	1154	1149	1153	1159	1145	1152
20 *d*	1109	1087	1113	1099	1093	1125	1140	1147	1155	1151	1134	1121	1122	1150	1173	1179	1179	1170	1168	1159	1162	1169	1167	1164	1143
21	1163	1158	1155	1153	1142	1150	1152	1154	1159	1162	1151	1141	1151	1171	1195	1223	1225	1209	1186	1178	1171	1174	1175	1161	1169
22	1162	1163	1165	1166	1167	1162	1162	1162	1160	1156	1151	1150	1145	1144	1151	1158	1164	1170	1170	1169	1170	1167	1169	1168	1161
23	1168	1162	1127	1108	1143	1159	1163	1163	1158	1151	1149	1145	1145	1150	1162	1172	1174	1174	1174	1173	1172	1167	1165	1163	1158
24	1162	1162	1161	1155	1155	1157	1157	1157	1150	1142	1133	1133	1141	1150	1159	1172	1185	1183	1174	1173	1169	1165	1162	1162	1159
25	1162	1159	1153	1153	1151	1156	1158	1158	1157	1152	1151	1149	1149	1153	1157	1159	1162	1166	1162	1167	1166	1163	1162	1162	1158
26 *q*	1161	1161	1157	1158	1162	1165	1163	1163	1162	1157	1155	1147	1145	1145	1149	1156	1161	1164	1168	1167	1163	1159	1159	1158	1159
27 *q*	1157	1157	1158	1158	1159	1160	1157	1155	1155	1152	1147	1139	1138	1141	1149	1157	1163	1169	1164	1162	1159	1161	1162	1157	1156
28	1153	1154	1156	1156	1157	1157	1155	1152	1150	1149	1144	1140	1135	1138	1151	1167	1185	1191	1185	1180	1179	1171	1159	1139	1158
29	1150	1149	1139	1134	1138	1144	1152	1154	1154	1151	1151	1151	1158	1162	1171	1205	1230	1237	1220	1224	1203	1185	1169	1162	*1171*
30	1145	1148	1138	1135	1140	1122	1129	1139	1146	1151	1153	1151	1162	1174	1175	1181	1180	1180	1180	1186	1184	1175	1172	1167	1159
31	1166	1166	1163	1163	1165	1164	1163	1163	1163	1158	1153	1151	1155	1162	1174	1179	1175	1171	1171	1170	1173	1169	1167	1161	1165
Mean	1148	1144	1144	1145	*1142*	1145	1147	1145	1147	1148	1146	1143	1147	1158	1169	1181	*1185*	1185	1181	1179	1169	1160	1156	1151	1157

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

124 ESKDALEMUIR — AUGUST

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination			Vertical force							
	Maximum 16,000γ +		Minimum 16,000γ +		Range	Maximum 11° +	Minimum 11° +	Range	Maximum 44,000γ +		Minimum 44,000γ +		Range			
	h. m.	γ	γ	h. m.	γ	h. m. ′	′	′	h. m.	γ	γ	h. m.	γ			°A.
1	19 50	586	482	10 35	104	12 1	55·5	38·8	22 46	16·7	14 45	1173	1144	2 40	29	2,3,2,3,2,2,2,4	20	1	84·5
2	20 37	578	483	10 50	95	12 36	56·9	42·0	5 27	14·9	16 45	1181	1129	1 17	52	3,2,3,3,3,3,3,1	21	1	84·5
3	18 5	588	509	8 0	79	1 50	54·9	44·4	6 11	*10·5*	18 42	1180	1129	10 45	51	2,1,2,2,3,3,3,1	17	1	84·5
4	18 48	613	450	10 17	163	12 25	62·3	40·4	6 55	21·9	19 20	1213	1129	11 32	84	2,2,2,4,4,4,4,1	23	1	84·5
5	18 1	573	501	11 29	72	13 43	54·8	38·3	7 56	16·5	16 10	1168	1133	11 0	35	1,3,1,2,2,2,1,1	13	0	84·5
6	15 2	593	501	10 32	92	13 1	59·3	41·4	7 38	17·9	16 19	1196	1132	10 50	64	0,1,2,2,3,4,1,0	13	1	84·5
7	23 2	647	500	14 10	147	23 2	56·6	41·5	8 9	15·1	16 40	1174	1128	10 9	46	0,3,3,2,4,1,2,4	19	1	84·5
8 *d*	13 19	*867*	*102*	7 17	*765*	20 9	*97·9*	*11·5*	22 10	*86·4*	15 9	*1424*	*909*	21 58	*515*	5,6,7,6,7,6,7,7	51	2	84·5
9 *d*	21 59	683	390	0 10	293	15 33	61·2	22·8	2 44	38·4	18 0	1214	951	0 19	263	5,5,4,2,4,5,4,6	35	2	84·5
10 *d*	17 53	754	334	8 39	420	7 32	77·3	36·3	8 41	41·0	19 4	1336	1022	1 43	314	5,3,6,4,5,6,6,3	38	2	84·5
11 *d*	6 1	574	460	7 13	114	12 26	54·7	32·9	7 12	21·8	20 1	1195	1136	6 20	59	3,3,4,3,3,3,3,3	25	1	84·5
12	20 0	664	435	7 24	229	14 23	56·5	36·5	23 55	20·0	17 21	1219	1126	24 0	93	3,3,4,3,3,3,5,4	28	1	84·5
13	18 41	574	479	10 3	95	14 41	54·7	35·7	1 0	19·0	19 24	1173	1112	5 16	61	3,3,2,2,2,2,2,1	17	1	84·7
14	17 32	602	480	12 17	122	12 59	56·1	39·6	6 52	16·5	16 51	1194	1138	11 41	56	1,1,1,2,3,3,3,3	17	1	84·7
15	18 56	579	497	11 14	82	15 4	55·9	39·5	6 39	16·4	20 20	1173	1137	11 32	36	3,2,2,1,3,2,2,2	17	0	84·8
16 *q*	19 11	558	501	10 52	57	13 30	54·8	39·4	6 22	15·4	6 25	1166	1142	12 36	24	1,1,1,1,1,1,0,1	7	0	84·9
17 *q*	17 38	577	515	11 9	62	12 30	56·5	42·1	6 10	14·4	19 20	1169	1133	12 19	36	1,0,1,1,2,2,2,2	11	0	84·8
18 *q*	19 24	575	504	10 36	71	13 6	56·5	39·6	7 51	16·9	20 5	1165	1133	12 21	32	2,1,1,2,2,2,2,2	14	0	84·9
19	19 40	653	497	10 50	156	13 2	57·1	36·9	23 5	20·2	4 45	1166	1122	24 0	44	1,0,0,1,1,2,4,3	12	1	85·0
20 *d*	20 21	585	472	14 13	113	13 20	64·4	21·9	1 37	42·5	15 51	1183	1070	1 33	113	5,3,3,3,4,3,3,2	26	1	85·0
21	20 41	571	472	11 16	99	14 6	64·8	37·5	20 23	27·3	16 4	1231	1111	11 37	120	2,3,2,3,3,3,3,3	22	1	84·8
22	21 28	582	483	9 30	99	14 16	58·0	39·2	22 37	18·8	17 58	1174	1142	13 5	32	1,1,1,2,2,3,3,3	16	1	84·9
23	2 4	580	497	10 20	83	14 39	59·9	30·2	3 28	29·7	16 50	1174	1099	3 15	75	4,4,1,3,3,2,1,2	20	1	84·9
24	16 18	578	505	9 42	73	14 41	58·4	36·8	7 50	21·6	16 47	1191	1131	11 16	60	2,3,2,2,2,3,2,1	17	1	84·9
25	20 20	585	495	10 13	90	13 59	57·0	40·2	7 0	16·8	19 58	1169	1149	11 52	*20*	2,2,2,1,1,1,3,2	14	0	84·8
26 *q*	20 40	569	506	10 59	63	14 59	55·8	40·9	7 47	14·9	18 50	1169	1143	13 29	26	2,0,1,0,2,2,1,0	8	0	84·8
27 *q*	20 52	574	513	10 43	*61*	14 55	54·8	40·6	8 44	14·2	17 20	1169	1136	11 50	33	0,0,1,1,1,2,2,2	9	0	84·8
28	19 14	583	504	10 41	79	13 29	58·3	39·3	24 0	19·0	17 38	1192	1131	23 40	61	1,2,1,2,3,3,2,3	17	1	84·8
29	16 16	607	494	13 17	113	14 35	59·7	34·3	19 52	25·4	17 18	1244	1133	3 28	111	3,2,2,4,4,4,4,3	26	1	84·8
30	5 33	573	477	10 1	96	12 33	55·6	38·1	0 31	17·5	20 0	1193	1112	5 33	81	4,4,3,3,3,3,3,2	25	1	84·8
31	19 27	572	497	9 31	75	14 0	55·9	40·4	8 50	15·5	15 50	1179	1150	11 11	29	2,2,2,2,3,3,2,3	19	1	84·8
Mean	- -	606	469	- -	137	- -	59·4	36·7	- -	22·9	- -	1198	1112	- -	86	-	-	0·84	84·7

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

125 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — SEPTEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *d*	560	521	556	569	569	569	548	533	525	504	490	499	493	494	541	529	553	553	546	561	553	499	533	550	535
2 *d*	560	544	545	557	517	542	545	529	503	497	493	477	492	509	535	537	543	547	573	552	541	537	545	543	532
3	537	528	530	531	533	534	533	529	522	509	509	518	517	550	529	526	553	557	533	540	544	545	554	539	533
4	545	545	544	542	551	543	545	533	482	484	515	503	545	533	545	556	573	556	566	559	551	561	556	541	541
5 *q*	541	537	541	539	537	535	540	533	510	515	516	524	525	526	536	539	539	543	550	553	554	558	552	555	537
6 *q*	549	551	549	550	547	545	538	541	537	527	523	525	529	521	532	537	547	553	558	557	560	557	550	559	543
7	559	552	545	549	553	557	562	559	547	523	513	511	515	516	528	539	545	557	573	565	559	561	561	556	546
8	557	553	539	557	549	549	546	545	533	518	512	506	519	531	533	540	548	555	558	558	560	557	555	552	543
9	557	561	545	545	549	544	548	544	534	517	505	514	507	524	531	553	553	560	557	560	557	557	559	557	543
10	552	552	549	547	547	547	547	541	533	514	506	509	536	538	557	557	583	562	569	566	569	558	557	553	548
11	549	552	559	555	552	550	545	549	544	522	509	515	524	524	541	543	551	553	553	559	550	561	549	543	544
12	540	546	549	551	553	543	533	527	524	511	510	521	531	561	567	517	530	560	549	534	541	543	549	551	539
13	547	560	550	551	549	549	552	545	534	519	509	517	512	514	523	531	537	541	550	555	556	557	557	556	540
14	555	554	553	553	549	543	556	546	530	517	509	501	513	519	531	537	541	545	553	557	557	554	554	553	541
15	552	551	550	555	553	552	548	538	526	519	526	522	533	545	554	526	549	563	572	573	547	528	526	492	542
16	506	513	538	525	525	526	522	501	499	492	482	487	501	519	517	535	548	546	556	545	545	554	537	543	523
17	535	538	544	541	536	534	525	519	512	506	493	497	505	534	541	539	533	543	543	552	550	548	548	548	532
18	554	554	553	549	543	544	534	528	514	510	515	521	535	543	541	546	554	543	557	563	550	540	569	547	542
19	531	550	559	542	537	534	525	517	510	493	494	500	517	534	542	543	544	547	569	552	551	551	552	552	535
20 *q*	555	553	552	551	550	545	540	525	509	506	503	502	509	524	528	541	543	561	554	557	557	551	549	565	539
21	549	552	553	554	552	547	541	529	521	517	510	501	509	517	535	552	556	551	559	573	567	565	562	561	543
22	565	558	555	551	550	548	542	542	538	525	516	512	509	519	532	537	554	560	570	578	585	581	571	573	*549*
23	553	559	577	560	558	561	552	557	543	523	521	519	507	509	523	533	553	551	556	557	557	553	561	571	546
24 *d*	531	532	546	529	553	540	540	534	515	506	496	482	497	522	517	541	553	575	551	547	549	551	537	521	532
25 *d*	533	555	538	543	548	553	541	548	531	506	494	505	492	517	536	537	533	522	531	525	525	528	521	498	527
26	471	531	520	513	549	550	536	533	512	484	488	486	492	487	515	514	522	541	548	539	540	555	556	548	*522*
27 *q*	548	541	542	543	542	544	543	538	531	519	507	502	501	507	512	521	530	537	547	551	552	553	551	548	534
28 *q*	549	549	549	549	549	549	548	543	534	524	514	510	514	516	523	532	543	550	556	557	558	559	561	558	541
29 *d*	561	559	575	564	550	545	558	551	517	506	488	485	496	508	498	520	526	513	527	528	528	535	542	517	529
30	514	520	541	528	527	535	545	532	521	525	523	502	492	501	534	533	511	537	539	543	545	545	545	548	529
Mean	544	546	548	546	546	545	543	536	523	511	506	*506*	512	522	533	536	545	549	*554*	554	552	550	551	547	538

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

126 ESKDALEMUIR (D) — 11° + — SEPTEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 *d*	41·0	37·1	39·2	37·1	41·4	47·1	41·7	38·5	39·8	43·9	47·7	52·1	56·3	57·3	57·8	54·9	50·7	48·1	47·8	45·8	36·9	34·7	46·7	46·1	45·4
2 *d*	44·4	48·6	44·4	39·7	43·0	47·4	46·9	45·3	45·7	48·4	48·4	50·3	52·0	52·5	50·3	48·6	47·6	46·6	44·5	46·6	41·0	38·9	45·6	47·6	46·4
3	45·7	45·4	46·1	46·7	46·6	45·9	44·0	42·7	43·1	45·5	47·5	50·3	53·0	53·8	53·8	50·6	49·9	45·2	45·5	47·7	47·3	44·9	43·1	47·1	47·1
4	47·9	48·9	50·6	49·6	48·9	47·4	46·7	47·6	47·9	50·2	50·7	52·9	54·1	55·4	56·6	53·8	43·8	46·7	44·1	45·2	45·6	43·1	45·0	44·0	48·6
5 *q*	45·8	45·4	45·2	44·2	44·1	44·5	45·4	44·8	43·3	44·3	46·7	49·7	52·5	53·1	52·8	51·1	49·0	47·8	47·9	47·5	46·9	46·4	46·3	46·6	47·1
6 *q*	46·6	46·4	45·9	45·8	45·8	46·2	46·6	46·6	45·5	46·6	48·8	51·9	54·0	52·9	52·6	51·2	49·3	49·5	48·1	47·7	47·9	43·1	43·8	44·3	47·8
7	45·1	44·0	45·4	44·3	44·3	53·7	45·2	42·9	42·6	43·8	45·7	49·0	51·8	52·5	51·2	50·3	50·2	50·2	49·5	49·2	48·6	47·9	47·8	46·6	47·6
8	45·8	43·1	44·9	44·0	42·0	43·5	43·1	42·5	42·7	44·1	45·7	50·3	52·9	54·7	53·4	50·9	49·9	49·0	48·3	48·6	48·4	47·5	46·6	45·6	47·0
9	43·9	43·1	42·5	44·8	44·4	43·5	44·2	42·7	43·0	44·1	46·5	50·7	53·4	55·1	54·3	53·4	51·8	49·1	47·7	47·9	47·3	47·2	46·4	45·7	47·2
10	46·8	46·4	46·0	46·1	45·3	44·4	42·5	41·5	41·1	44·1	45·8	50·5	55·0	57·6	57·9	55·0	56·0	50·7	50·9	51·1	50·4	49·3	48·7	47·0	*48·8*
11	46·1	45·4	45·5	44·3	44·4	43·0	43·0	41·9	41·5	43·5	46·0	50·0	54·8	57·8	58·7	55·8	51·2	47·9	45·7	43·3	47·1	43·0	44·9	42·9	47·0
12	45·3	47·0	46·4	40·7	37·2	38·7	42·3	41·0	41·8	44·3	46·3	49·3	53·6	56·7	60·5	56·9	53·5	53·3	50·9	48·9	48·9	47·9	47·3	46·1	47·7
13	45·1	48·4	45·3	46·1	45·5	44·6	44·3	43·7	44·3	46·3	49·2	52·3	54·3	54·0	52·0	50·6	49·6	48·5	48·0	47·9	47·2	47·1	47·0	46·9	47·8
14	46·4	45·9	45·5	45·1	43·7	45·4	44·3	41·2	40·2	43·5	48·7	53·0	54·5	54·2	52·6	50·4	49·0	48·2	48·2	48·5	47·9	47·4	47·1	47·1	47·4
15	46·4	46·0	45·0	44·7	43·3	44·3	43·0	41·5	40·3	42·5	46·0	50·9	54·4	54·0	56·3	52·8	51·6	50·7	50·5	50·7	49·8	48·4	32·9	30·6	46·5
16	25·4	32·2	35·1	25·0	33·6	40·1	38·9	38·9	43·3	43·9	47·3	51·7	54·5	56·5	54·7	51·6	50·7	49·7	49·9	50·3	47·6	48·2	47·1	43·0	*44·1*
17	43·7	44·8	44·3	44·1	44·3	44·3	43·5	43·5	43·7	46·6	50·1	56·7	58·3	55·5	53·1	50·5	48·4	48·2	47·9	48·4	47·7	47·7	47·1	46·9	47·9
18	46·8	46·1	43·8	43·1	43·9	44·1	42·7	42·0	42·0	44·4	47·9	52·3	54·9	55·2	53·3	51·5	48·3	48·1	48·6	46·9	48·0	47·3	42·6	40·0	46·8
19	40·6	43·6	45·3	42·4	41·4	42·8	41·0	40·3	41·7	43·8	47·2	51·0	54·2	55·2	54·3	51·5	50·0	49·7	49·0	47·1	47·7	47·9	48·0	47·7	46·8
20 *q*	47·6	46·7	46·2	46·1	45·4	44·4	43·0	40·6	40·9	43·4	47·4	50·9	53·6	55·4	53·5	50·1	48·9	48·9	48·2	48·9	48·7	46·8	45·8	43·0	47·3
21	45·5	46·4	46·4	46·2	45·9	45·0	43·8	45·0	43·0	43·9	45·1	49·1	53·5	54·3	54·5	54·0	51·8	49·8	49·0	50·9	48·8	47·9	47·0	45·7	48·0
22	44·8	42·4	41·8	43·2	44·3	43·2	44·3	43·5	42·5	42·6	44·2	46·8	50·5	53·5	54·0	52·7	52·5	50·9	50·0	49·8	48·9	48·9	48·5	38·5	46·8
23	44·9	42·8	45·1	39·0	41·8	43·3	44·0	44·2	42·4	41·7	43·8	47·9	52·9	54·9	56·4	55·8	53·8	49·5	47·3	48·6	48·1	44·8	42·7	39·9	46·5
24 *d*	36·3	39·8	35·6	40·3	43·2	43·5	42·9	41·4	42·1	44·1	47·7	50·7	52·5	54·7	54·8	50·4	47·3	52·7	51·5	43·0	44·9	38·8	42·3	40·1	45·0
25 *d*	45·0	46·7	46·2	45·7	46·3	49·5	56·7	50·2	46·6	49·3	49·1	52·9	56·1	54·9	52·8	53·1	51·8	46·4	42·5	43·7	43·5	41·7	40·3	40·1	48·0
26	39·4	43·6	44·8	44·3	49·2	45·3	43·4	43·2	43·5	44·7	47·6	50·2	52·1	52·6	52·9	52·0	49·6	47·3	46·0	45·7	44·3	44·9	45·9	48·7	46·7
27 *q*	44·7	44·8	46·0	45·9	45·7	45·5	45·3	43·9	43·7	44·1	46·3	48·7	49·7	51·3	51·4	51·4	49·6	47·9	47·2	47·6	47·3	47·5	47·0	47·1	47·1
28 *q*	47·0	46·5	46·1	45·7	45·3	45·2	44·5	43·7	42·8	43·3	45·4	48·2	50·5	52·0	52·5	52·4	50·5	48·8	48·3	48·1	47·9	47·9	47·7	47·7	47·4
29 *d*	46·9	46·3	47·7	41·7	41·8	47·1	49·0	50·6	49·0	47·0	47·4	50·2	51·1	53·6	52·2	55·4	50·2	47·0	47·1	46·2	44·5	45·7	47·1	41·2	47·7
30	35·0	43·8	45·3	45·1	45·6	46·0	46·0	46·5	46·5	44·8	47·6	48·9	51·7	52·6	56·3	53·8	47·7	48·6	48·1	47·5	47·1	47·1	46·7	46·6	47·3
Mean	43·9	44·6	44·6	43·4	43·9	45·0	44·4	43·4	*43·2*	44·8	47·1	50·7	53·4	*54·5*	54·3	52·4	50·1	48·8	47·9	47·6	46·9	45·7	45·5	44·3	47·1

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

127 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — SEPTEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *d*	1147	1100	1104	1087	1090	1091	1116	1141	1150	1155	1152	1151	1162	1175	1184	1190	1179	1178	1175	1176	1180	1162	1168	1168	*1149*
2 *d*	1152	1135	1124	1113	1118	1119	1133	1138	1152	1159	1164	1164	1170	1179	1186	1188	1184	1180	1181	1194	1188	1175	1166	1164	1159
3	1154	1154	1156	1163	1169	1171	1174	1174	1171	1160	1156	1158	1165	1181	1197	1199	1192	1202	1192	1179	1173	1170	1163	1163	1172
4	1163	1163	1163	1163	1159	1162	1163	1164	1165	1164	1163	1163	1170	1168	1174	1186	1209	1205	1196	1181	1178	1170	1158	1158	1171
5 *q*	1159	1160	1163	1163	1163	1164	1163	1163	1163	1156	1147	1148	1152	1152	1158	1164	1165	1164	1163	1162	1162	1163	1163	1163	1160
6 *q*	1163	1163	1163	1163	1163	1162	1162	1160	1158	1147	1143	1142	1147	1157	1163	1171	1176	1173	1170	1170	1167	1165	1160	1154	1161
7	1152	1151	1152	1157	1158	1141	1119	1135	1141	1147	1147	1143	1143	1147	1152	1156	1157	1158	1159	1163	1163	1159	1159	1160	1151
8	1159	1158	1156	1149	1152	1158	1159	1158	1156	1151	1147	1144	1140	1141	1151	1155	1158	1160	1162	1162	1162	1162	1162	1163	1155
9	1157	1145	1145	1154	1158	1160	1160	1163	1164	1157	1152	1147	1146	1147	1152	1158	1163	1174	1173	1164	1163	1162	1160	1158	1158
10	1158	1158	1159	1160	1160	1162	1164	1164	1161	1155	1151	1141	1132	1135	1142	1151	1160	1170	1170	1166	1164	1164	1164	1163	1157
11	1160	1159	1156	1156	1157	1158	1158	1155	1151	1145	1139	1134	1137	1142	1152	1171	1190	1195	1191	1183	1175	1163	1150	1158	1160
12	1156	1148	1132	1127	1134	1143	1154	1158	1157	1154	1152	1146	1146	1143	1164	1179	1175	1177	1195	1195	1183	1171	1164	1160	1159
13	1160	1142	1144	1155	1158	1160	1161	1158	1156	1150	1147	1146	1148	1152	1152	1154	1157	1159	1159	1159	1159	1160	1159	1160	1155
14	1159	1159	1159	1159	1158	1157	1148	1151	1150	1146	1142	1142	1142	1147	1152	1158	1158	1158	1156	1157	1158	1159	1159	1159	1154
15	1160	1160	1160	1158	1156	1156	1157	1158	1156	1148	1139	1135	1139	1146	1158	1166	1158	1164	1166	1174	1186	1199	1175	1133	1159
16	1123	1144	1140	1123	1134	1152	1163	1164	1164	1158	1152	1152	1152	1160	1170	1171	1176	1183	1187	1186	1183	1168	1158	1160	1159
17	1165	1165	1164	1164	1164	1164	1164	1165	1166	1158	1165	1152	1158	1162	1164	1168	1171	1170	1169	1167	1164	1165	1164	1164	1164
18	1163	1163	1161	1161	1161	1162	1163	1164	1163	1155	1152	1146	1145	1151	1160	1167	1174	1173	1171	1171	1170	1171	1158	1150	1161
19	1148	1147	1143	1141	1151	1157	1158	1160	1160	1156	1147	1140	1139	1142	1147	1152	1154	1156	1159	1164	1164	1160	1159	1159	1153
20 *q*	1159	1160	1161	1161	1161	1161	1160	1159	1155	1146	1140	1138	1138	1143	1156	1167	1164	1164	1165	1165	1164	1164	1163	1150	1157
21	1152	1157	1159	1159	1159	1159	1163	1160	1154	1150	1149	1145	1146	1147	1151	1157	1164	1169	1167	1162	1163	1160	1160	1160	1157
22	1157	1154	1152	1154	1157	1158	1159	1158	1158	1155	1148	1146	1144	1144	1144	1147	1152	1154	1155	1154	1153	1152	1157	1162	1153
23	1164	1159	1130	1134	1140	1146	1151	1152	1155	1156	1150	1143	1140	1139	1144	1156	1166	1174	1178	1171	1169	1171	1166	1134	1154
24 *d*	1131	1137	1136	1139	1134	1147	1152	1152	1147	1142	1144	1146	1144	1152	1162	1192	1209	1206	1227	1219	1181	1171	1154	1148	1161
25 *d*	1133	1118	1146	1159	1160	1157	1144	1143	1151	1153	1163	1167	1181	1212	1234	1222	1220	1233	1220	1207	1195	1187	1171	1145	*1176*
26	1093	1108	1134	1124	1128	1131	1147	1157	1162	1170	1174	1175	1176	1174	1173	1187	1186	1186	1187	1187	1182	1174	1154	1140	1159
27 *q*	1139	1153	1159	1163	1164	1165	1170	1174	1174	1170	1167	1162	1158	1158	1158	1164	1170	1171	1170	1167	1166	1164	1164	1164	1164
28 *q*	1163	1163	1163	1163	1163	1163	1164	1164	1164	1162	1157	1152	1148	1148	1148	1152	1158	1158	1158	1158	1159	1159	1159	1159	1159
29 *d*	1159	1158	1146	1139	1142	1141	1135	1136	1141	1147	1155	1159	1170	1174	1188	1204	1244	1209	1184	1182	1183	1176	1168	1162	1167
30	1148	1133	1129	1143	1155	1159	1158	1162	1166	1166	1164	1164	1170	1170	1171	1190	1208	1196	1184	1176	1173	1170	1167	1164	1166
Mean	1152	1149	1149	*1149*	1151	1153	1155	1157	1158	1155	1152	1150	1152	1156	1164	1171	*1177*	1177	1176	1174	1171	1167	1162	1157	1160

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

128 ESKDALEMUIR — SEPTEMBER

	TERRESTRIAL MAGNETIC ELEMENTS																3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination					Vertical force									
	Maximum 16,000γ +		Minimum 16,000γ +		Range	Maximum 11° +		Minimum 11° +		Range	Maximum 44,000γ +		Minimum 44,000γ +		Range					
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ					°A.
1 *d*	3 11	583	473	12 41	110	14 42	59·2	30·4	1 45	28·8	15 1	1193	*1073*	1 35	120	4,4,3,3,4,3,4,4	29	1	84·9
2 *d*	18 54	601	459	11 49	142	1 23	58·3	32·3	21 7	26·0	10 10	1196	1111	3 48	85	4,4,3,3,4,1,4,4	27	1	84·9
3	13 11	578	500	12 14	78	13 8	57·2	38·6	22 18	18·6	17 35	1206	1152	0 30	54	2,1,1,2,4,3,2,3	18	1	84·9
4	16 36	604	*427*	9 5	*177*	14 31	58·7	40·3	16 41	18·4	16 40	1215	1154	22 22	61	2,2,4,5,4,4,3,3	27	1	84·9
5 *q*	23 29	565	493	8 49	72	13 29	53·9	42·5	8 4	11·4	5 36	1166	1146	11 0	20	1,1,3,2,2,1,1,1	12	0	84·9
6 *q*	20 41	565	517	13 38	*48*	12 30	59·3	40·2	21 48	19·1	16 28	1178	1141	11 59	37	0,1,2,1,2,2,1,3	12	0	84·9
7	5 54	593	503	10 35	90	5 36	59·3	40·7	8 20	18·6	20 20	1163	1112	6 3	51	2,4,3,2,2,2,2,1	18	1	84·9
8	21 0	565	495	11 54	70	13 50	56·6	40·4	8 28	16·2	23 20	1165	1136	12 50	29	2,2,2,2,2,2,1,2	15	1	84·9
9	1 53	578	496	12 31	82	13 50	56·1	40·7	2 3	15·4	17 41	1175	1134	2 0	41	3,1,1,2,3,3,2,1	16	1	84·9
10	16 15	596	501	11 0	95	14 6	60·1	40·3	8 22	19·8	18 22	1173	1130	12 37	43	0,1,0,1,3,4,2,2	13	1	85·0
11	21 40	580	496	10 46	84	14 36	59·7	40·1	7 56	19·6	17 40	1197	1134	11 28	63	2,1,2,2,2,2,3,3	17	1	85·0
12	13 54	592	500	15 51	92	13 54	*62·1*	34·7	4 50	27·4	18 58	1198	1123	3 9	75	2,3,1,3,4,4,3,2	22	1	85·1
13	1 42	578	497	12 10	81	1 20	54·4	42·5	7 54	11·9	21 40	1162	1132	1 47	30	3,2,1,2,2,1,2,1	14	1	85·1
14	6 32	561	489	11 39	72	12 24	56·1	37·7	8 4	18·4	15 38	1160	1141	10 30	19	0,2,2,3,2,2,1,0	12	0	85·2
15	18 46	582	477	23 2	105	14 32	57·4	26·5	22 46	30·9	21 59	1215	1119	24 0	96	0,1,2,2,2,3,3,5	18	1	85·2
16	18 12	579	479	10 21	100	13 45	57·0	*19·3*	3 14	*37·7*	18 43	1191	1118	0 14	73	4,5,3,1,3,3,3,3	25	1	85·2
17	20 5	557	485	11 28	72	12 8	60·6	41·9	7 42	18·7	16 55	1172	1151	11 42	21	2,2,1,3,3,2,2,0	15	1	85·2
18	22 25	589	501	9 43	88	13 4	56·3	38·7	23 44	17·6	16 20	1178	1142	11 52	36	1,1,2,3,2,1,2,4	16	1	85·2
19	18 31	584	485	10 52	99	13 55	56·1	39·0	0 1	17·1	19 44	1168	1135	2 52	33	3,3,2,2,2,2,3,1	18	1	85·2
20 *q*	23 12	574	498	10 36	76	13 20	56·0	38·9	7 38	17·1	15 40	1169	1136	12 38	33	0,1,2,2,1,2,2,2	12	0	85·1
21	19 1	612	496	12 1	116	13 52	55·1	40·8	9 0	14·3	17 46	1170	1143	12 11	27	1,1,2,2,2,1,4,2	15	1	85·1
22	20 49	*626*	505	12 22	121	14 35	55·0	31·7	23 34	23·3	23 44	1170	1142	14 32	28	2,1,1,1,2,3,4,4	18	1	85·1
23	23 3	597	496	10 36	101	14 37	57·1	35·2	3 7	21·9	17 59	1181	1122	2 50	59	4,3,3,3,2,3,2,4	24	1	85·1
24 *d*	17 7	591	467	11 41	124	13 10	56·9	30·8	2 52	26·1	18 59	1251	1128	0 21	123	3,3,2,3,3,3,4,4	25	1	85·1
25 *d*	1 12	576	475	12 20	101	6 28	58·8	35·9	23 56	22·9	17 48	1244	1114	1 27	*130*	3,3,3,3,4,3,3,4	26	1	85·1
26	22 50	586	433	0 41	153	14 45	53·6	35·7	0 2	17·9	15 35	1190	1074	0 56	116	5,3,3,3,3,3,2,3	25	1	85·1
27 *q*	0 1	557	493	11 55	64	14 55	52·0	42·8	8 18	*9·2*	8 10	1175	1131	0 5	44	2,1,1,2,1,1,0,0	8	0	85·1
28 *q*	22 47	565	509	11 48	56	14 52	52·7	42·5	8 40	10·2	7 35	1165	1147	14 10	*18*	0,0,0,1,1,2,0,0	4	0	85·1
29 *d*	2 30	585	462	11 33	123	15 50	56·9	39·9	4 7	17·0	16 40	*1257*	1134	6 10	123	2,3,3,3,3,4,1,3	22	1	85·1
30	6 19	553	480	16 3	73	14 26	58·3	33·4	0 41	24·9	16 37	1213	1123	1 51	90	4,2,2,3,3,4,1,1	20	1	85·1
Mean	- -	582	486	- -	95	- -	57·0	37·1	- -	19·9	- -	1189	1129	- -	59	-	-	0·80	85·1

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

129 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — OCTOBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *d*	549	565	558	557	542	506	565	552	543	479	473	484	505	514	513	514	511	524	534	535	546	539	557	549	529
2	546	532	537	535	539	520	546	546	497	460	461	460	455	489	501	510	505	513	523	527	525	538	529	536	514
3	524	526	529	536	530	538	554	541	522	498	490	492	490	504	516	530	536	541	545	514	521	526	519	517	522
4	533	533	530	533	537	537	532	542	524	511	505	506	513	519	533	532	545	549	553	521	516	511	521	487	526
5	517	508	518	547	546	524	549	546	525	505	501	500	499	517	540	544	549	537	544	551	545	545	543	541	531
6 *q*	542	537	545	543	541	541	537	533	521	509	501	497	504	517	528	536	543	545	554	549	549	548	551	549	534
7	545	549	552	549	553	554	552	547	535	520	507	509	516	529	536	540	544	550	563	554	557	538	560	557	542
8 *q*	538	544	545	548	545	549	553	549	542	523	515	516	520	527	539	541	545	549	553	556	553	555	551	559	542
9 *q*	546	552	549	549	554	555	553	551	543	529	516	510	507	516	527	540	560	561	552	557	562	561	559	556	*544*
10	562	553	553	556	556	570	493	505	517	513	491	480	487	497	519	535	550	550	559	561	553	559	553	549	534
11	541	545	545	544	544	548	541	540	544	535	512	500	483	504	529	507	541	534	545	548	546	545	548	559	535
12	545	545	545	545	545	545	550	536	528	519	492	481	515	509	530	530	537	549	552	553	553	553	556	548	536
13	542	544	543	550	557	552	553	541	526	510	501	507	520	536	535	548	560	533	549	551	553	555	550	553	540
14	550	545	545	545	549	551	543	542	533	499	496	503	516	517	536	538	529	538	545	548	537	517	515	475	530
15 *d*	425	477	484	485	505	521	514	474	474	456	448	445	461	517	513	549	524	540	513	528	529	512	520	521	497
16 *q*	521	521	525	527	527	521	524	517	506	489	482	480	489	492	506	516	520	530	521	534	539	539	540	539	517
17	540	541	541	542	542	542	541	529	511	504	489	484	492	504	517	529	535	539	544	552	551	548	688	344	527
18 *d*	77	385	496	450	433	509	525	509	505	494	476	477	485	506	525	541	539	561	564	536	531	483	520	337	478
19 *d*	393	396	407	489	441	473	402	357	372	444	473	437	445	457	488	517	521	500	506	520	515	515	517	517	*463*
20	513	512	509	517	521	520	525	517	505	493	483	481	489	512	521	525	533	516	520	512	524	509	517	525	512
21 *d*	525	509	540	538	510	551	535	517	446	447	476	447	452	496	509	523	502	529	525	491	457	491	512	513	502
22	517	517	517	522	529	533	522	507	502	486	432	452	497	520	488	516	525	509	509	507	482	496	535	517	506
23	513	515	512	520	536	524	512	516	520	496	473	473	503	517	505	515	570	516	510	505	540	502	513	512	513
24	539	509	524	521	521	525	533	524	518	505	511	497	478	507	521	529	525	517	509	533	511	521	521	528	518
25	525	528	533	529	539	537	542	543	529	513	507	503	513	517	509	516	520	533	535	537	541	527	532	533	527
26	544	546	529	542	538	537	535	533	532	527	521	514	518	517	521	521	515	530	530	542	537	517	555	508	530
27	524	516	541	538	545	548	541	537	518	517	503	489	502	517	512	501	516	513	509	521	512	528	529	525	521
28	529	531	528	524	532	531	533	537	514	504	501	506	501	509	516	525	529	539	536	545	541	541	563	543	527
29	536	538	541	543	545	550	541	539	537	519	512	504	512	517	523	529	530	531	533	535	532	533	536	529	531
30 *q*	539	541	545	545	544	553	549	544	539	529	523	519	521	524	528	538	545	545	550	551	549	549	549	555	541
31	548	550	549	551	563	568	568	553	546	534	520	521	516	515	525	531	533	541	541	540	537	545	541	545	541
Mean	513	523	529	533	533	537	534	527	515	502	493	*489*	497	511	520	528	533	534	536	536	534	531	*542*	520	523

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

130 ESKDALEMUIR (D) — 11° + — OCTOBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 *d*	47·1	45·9	43·0	39·2	36·8	56·9	44·8	46·9	44·7	50·2	52·4	53·1	52·5	54·7	53·2	53·0	50·8	49·0	48·1	47·9	47·9	46·3	45·7	42·1	48·0
2	43·9	44·6	45·7	45·6	45·2	47·7	60·5	52·1	48·3	45·9	47·4	51·3	52·3	57·8	55·6	51·1	48·7	45·3	46·5	46·5	43·9	41·0	45·3	44·7	48·2
3	42·6	44·0	47·5	46·8	45·1	45·6	46·4	44·7	45·5	45·7	49·8	52·9	54·9	55·5	55·7	56·6	53·3	44·8	40·5	44·7	45·1	36·7	39·4	43·2	47·0
4	44·8	46·1	46·5	46·4	45·6	45·6	50·3	51·1	45·0	45·2	47·6	50·2	52·4	52·0	51·9	49·7	49·6	48·9	48·8	43·9	38·9	38·8	35·0	43·9	46·6
5	41·2	42·2	45·5	41·6	40·3	43·1	45·1	43·0	42·3	43·2	45·7	50·9	54·0	55·6	53·9	51·5	48·6	48·4	47·7	45·7	45·0	46·8	46·4	45·5	46·4
6 *q*	45·3	44·9	46·3	44·2	45·0	45·0	44·4	43·3	42·6	42·8	44·7	47·8	50·1	52·0	52·5	51·3	49·9	49·3	48·7	48·5	48·3	47·0	45·9	46·7	46·9
7	45·8	44·8	44·6	45·0	45·3	45·0	44·8	44·0	43·1	43·9	45·9	49·7	52·3	52·6	51·5	49·9	48·6	48·6	47·8	45·9	43·9	41·2	43·1	42·3	46·2
8 *q*	44·0	45·9	45·7	44·0	45·6	45·3	44·9	43·2	42·4	43·2	45·2	49·7	52·0	53·2	53·3	50·8	48·5	48·2	48·4	48·2	47·4	46·8	45·1	43·8	46·9
9 *q*	43·8	45·6	46·2	45·9	45·8	45·5	44·8	44·0	43·1	43·2	44·5	47·8	50·4	52·0	51·5	50·5	49·7	49·0	49·2	48·6	48·4	47·8	45·3	44·8	47·0
10	44·3	42·7	44·2	45·2	50·3	52·7	62·9	60·1	48·7	44·3	45·4	47·9	50·0	53·1	53·3	52·5	51·0	51·6	51·1	51·0	49·7	48·6	46·6	45·0	*49·7*
11	43·3	44·8	42·5	44·0	44·3	44·9	43·4	43·5	42·5	44·1	45·7	50·7	54·0	55·4	57·5	53·5	51·0	49·4	48·3	42·4	46·5	46·6	44·7	44·8	47·0
12	46·6	45·1	44·8	44·9	44·8	43·8	43·1	42·1	42·8	44·3	47·8	49·6	56·8	53·8	54·3	52·1	46·3	47·6	47·6	47·5	47·4	44·6	42·9	41·4	46·7
13	44·0	46·4	45·3	46·6	44·8	44·4	43·5	42·5	42·2	45·0	48·4	52·9	56·7	56·8	54·0	52·5	52·5	49·8	47·9	48·9	47·2	45·3	46·6	46·3	47·9
14	47·3	45·1	44·6	45·4	44·9	43·5	44·3	43·5	43·3	45·3	48·7	52·4	55·7	56·4	53·4	53·3	52·0	49·5	46·7	47·5	45·3	40·3	36·3	31·3	46·5
15 *d*	35·0	36·7	29·1	34·6	43·1	43·4	44·5	44·8	49·6	49·5	51·1	54·6	56·9	52·2	54·1	51·8	45·3	40·5	45·3	47·5	43·4	45·0	46·3	46·6	45·5
16 *q*	46·6	46·4	45·3	46·8	43·9	44·9	43·4	42·5	42·1	43·6	45·7	49·6	52·0	51·6	51·1	48·6	46·7	44·9	43·5	46·7	46·8	46·6	46·5	46·6	46·3
17	46·8	46·6	46·4	45·9	45·7	45·3	43·2	40·8	42·4	41·2	43·9	47·5	50·6	52·5	52·0	50·5	49·3	49·2	48·6	47·8	45·2	45·6	33·0	27·7	45·3
18 *d*	21·8	25·7	36·7	34·0	39·4	38·1	42·3	38·8	39·8	42·5	45·7	48·4	50·4	52·4	53·0	51·4	48·5	51·4	44·0	45·8	39·0	38·5	39·4	48·7	*42·3*
19 *d*	25·5	24·5	23·7	30·8	51·5	72·9	65·5	61·2	45·0	48·8	50·8	51·2	53·8	53·9	48·4	49·2	42·8	45·3	44·7	43·0	44·8	43·9	45·0	47·1	46·4
20	44·6	46·3	46·9	46·7	45·0	44·1	44·5	42·2	41·2	41·4	43·8	46·9	49·6	53·3	52·5	49·8	44·6	44·3	42·1	44·2	42·3	40·1	43·1	45·8	45·2
21 *d*	45·4	42·1	44·0	44·8	53·9	58·8	56·9	47·0	47·7	52·9	50·4	52·7	53·8	53·7	52·4	48·5	45·8	44·8	37·6	39·2	27·9	32·6	40·1	44·4	46·6
22	46·0	45·8	45·9	45·7	46·1	45·7	45·7	44·7	44·1	46·5	49·4	53·2	54·7	56·3	53·1	50·1	48·4	47·3	37·3	29·8	35·0	38·1	36·0	37·6	45·1
23	37·5	40·7	43·1	46·4	44·6	46·4	47·5	44·9	42·4	46·3	48·5	51·5	52·9	52·0	53·3	49·6	40·7	45·9	46·7	43·9	38·7	40·6	39·5	40·4	45·2
24	40·6	39·8	42·8	45·4	46·9	46·9	47·7	45·8	42·8	42·5	47·6	50·9	50·8	54·2	47·8	52·3	41·3	43·0	44·0	37·0	43·3	42·2	41·2	42·3	45·0
25	41·4	45·4	46·0	46·2	46·4	46·8	47·1	46·7	44·2	44·5	47·4	49·0	51·1	52·0	52·2	49·8	43·9	43·0	49·3	48·2	46·8	39·5	43·0	45·2	46·5
26	44·9	37·1	39·9	40·4	43·2	45·7	45·1	45·8	45·3	44·1	47·8	50·3	52·0	51·5	49·5	49·3	44·3	46·7	48·6	47·1	45·7	40·6	40·3	37·3	45·1
27	40·3	51·0	48·7	44·8	44·5	46·4	47·3	48·2	45·9	47·8	49·5	52·3	55·0	52·5	52·1	49·7	47·7	48·4	40·3	39·0	38·8	40·3	37·9	41·1	46·2
28	45·7	45·5	43·9	48·8	45·7	45·7	46·6	45·8	43·1	43·5	45·5	49·3	49·6	51·1	50·9	49·7	46·2	47·6	46·1	43·6	46·4	45·5	42·6	43·3	46·3
29	45·9	45·4	46·6	48·4	46·7	45·7	45·8	45·3	43·4	43·4	46·7	49·7	50·2	53·2	50·7	49·5	47·6	47·5	46·1	45·2	42·6	42·9	40·7	42·2	46·3
30 *q*	46·4	47·0	47·1	46·2	49·2	46·1	44·9	43·0	42·2	43·0	45·8	48·2	50·0	50·3	49·7	49·3	48·5	47·6	46·8	46·0	45·8	45·7	45·8	43·2	46·6
31	43·9	45·6	45·7	50·2	44·0	44·4	47·5	47·7	47·9	46·5	49·0	51·0	52·0	52·1	50·7	49·4	47·5	46·8	46·4	45·5	41·0	41·8	44·8	45·6	47·0
Mean	42·7	43·2	43·7	44·2	45·3	47·0	47·4	45·8	44·1	45·0	47·3	50·4	52·6	*53·4*	52·4	50·9	47·7	47·2	46·0	45·1	43·8	42·8	*42·4*	42·9	46·4

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

131 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — OCTOBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *d*	1164	1152	1134	1142	1132	1108	1090	1116	1137	1147	1152	1170	1186	1228	1222	1202	1191	1180	1175	1171	1162	1176	1174	1156	1161
2	1162	1163	1160	1162	1158	1151	1112	1099	1126	1148	1164	1178	1190	1210	1236	1233	1200	1192	1183	1179	1179	1174	1169	1165	1171
3	1166	1163	1162	1151	1152	1158	1158	1163	1162	1159	1153	1160	1175	1184	1196	1216	1239	1251	1220	1202	1199	1192	1176	1165	1180
4	1170	1171	1174	1174	1172	1170	1164	1154	1159	1162	1159	1157	1157	1157	1168	1176	1175	1174	1180	1195	1192	1172	1139	1107	1166
5	1118	1134	1138	1141	1151	1152	1151	1156	1160	1162	1160	1160	1163	1165	1167	1170	1178	1180	1175	1171	1170	1166	1167	1169	1159
6 *q*	1169	1170	1163	1163	1166	1166	1168	1170	1170	1167	1163	1158	1158	1158	1159	1165	1169	1169	1166	1168	1168	1168	1165	1164	1165
7	1166	1166	1164	1163	1163	1163	1164	1164	1164	1160	1156	1148	1146	1146	1150	1156	1159	1159	1162	1166	1169	1168	1163	1144	1160
8 *q*	1151	1157	1162	1163	1163	1162	1160	1159	1159	1157	1154	1151	1151	1150	1157	1164	1164	1164	1163	1162	1162	1163	1164	1164	1159
9 *q*	1162	1159	1160	1163	1163	1163	1163	1164	1164	1165	1163	1156	1155	1154	1157	1159	1163	1166	1166	1164	1163	1163	1164	1164	1162
10	1160	1159	1159	1154	1146	1133	1134	1123	1142	1156	1161	1160	1156	1156	1158	1163	1163	1163	1163	1166	1171	1170	1170	1170	1157
11	1170	1157	1158	1163	1163	1163	1166	1170	1170	1167	1165	1160	1164	1162	1172	1178	1187	1184	1187	1183	1174	1172	1170	1163	1169
12	1157	1159	1162	1160	1160	1163	1164	1168	1169	1164	1159	1157	1156	1163	1164	1172	1180	1174	1169	1168	1166	1166	1166	1163	1165
13	1162	1158	1160	1158	1158	1159	1163	1168	1167	1157	1147	1142	1144	1150	1156	1158	1168	1184	1156	1175	1171	1170	1168	1165	1161
14	1157	1161	1163	1163	1163	1162	1163	1163	1160	1156	1151	1152	1154	1164	1179	1200	1214	1200	1186	1175	1180	1150	1112	1124	1165
15 *d*	1080	1024	1067	1104	1122	1138	1146	1157	1155	1155	1171	1196	1206	1253	1258	1277	1252	1230	1209	1203	1158	1174	1176	1176	1170
16 *q*	1175	1176	1173	1161	1156	1165	1173	1179	1178	1177	1174	1171	1172	1175	1176	1177	1177	1184	1191	1180	1176	1173	1173	1172	1174
17	1171	1171	1171	1170	1170	1170	1172	1177	1179	1172	1167	1165	1164	1167	1170	1169	1168	1167	1167	1170	1171	1172	1130	896	1157
18 *d*	622	1080	1132	1125	1120	1124	1148	1160	1168	1168	1176	1181	1184	1187	1188	1191	1195	1203	1220	1208	1206	1222	1244	1079	*1147*
19 *d*	1067	1096	1049	998	982	947	999	1067	1133	1187	1197	1225	1216	1227	1266	1282	1266	1233	1215	1182	1182	1184	1182	1171	1148
20	1169	1170	1169	1170	1172	1176	1180	1186	1188	1182	1181	1178	1176	1181	1209	1232	1245	1239	1226	1195	1187	1187	1181	1180	*1190*
21 *d*	1169	1153	1139	1148	1132	1075	1088	1131	1159	1159	1170	1188	1181	1177	1187	1210	1266	1284	1222	1248	1229	1205	1188	1185	1179
22	1183	1183	1184	1183	1182	1178	1181	1182	1183	1187	1193	1195	1217	1232	1203	1195	1193	1199	1215	1210	1181	1136	1141	1142	1187
23	1147	1141	1159	1169	1171	1171	1172	1172	1177	1176	1181	1176	1201	1213	1236	1244	1246	1226	1226	1216	1177	1165	1168	1160	1187
24	1132	1142	1160	1163	1167	1173	1171	1175	1181	1175	1168	1176	1193	1204	1239	1232	1238	1229	1220	1199	1183	1184	1177	1164	1185
25	1156	1166	1170	1175	1175	1174	1176	1176	1177	1171	1165	1167	1170	1183	1203	1221	1226	1219	1192	1185	1183	1188	1185	1181	1183
26	1171	1143	1140	1131	1146	1153	1164	1165	1170	1169	1165	1167	1172	1187	1204	1220	1222	1212	1197	1187	1187	1164	1153	1148	1172
27	1147	1132	1118	1136	1149	1157	1159	1161	1173	1171	1170	1175	1197	1261	1242	1216	1204	1204	1214	1203	1187	1171	1164	1164	1178
28	1169	1173	1171	1170	1170	1172	1175	1176	1185	1187	1182	1180	1183	1183	1182	1184	1188	1183	1183	1184	1181	1181	1176	1161	1178
29	1161	1165	1170	1167	1167	1169	1172	1176	1181	1180	1175	1177	1187	1189	1187	1190	1193	1192	1188	1187	1187	1182	1175	1176	1179
30 *q*	1171	1171	1172	1171	1167	1164	1168	1173	1177	1171	1166	1169	1171	1176	1179	1176	1176	1176	1176	1175	1175	1174	1175	1171	1173
31	1170	1168	1165	1153	1143	1147	1145	1148	1157	1160	1160	1159	1167	1181	1192	1193	1188	1182	1181	1182	1183	1175	1173	1172	1169
Mean	*1139*	1151	1153	1152	1152	1149	1152	1158	1165	1167	1167	1169	1175	1185	1192	1197	*1200*	1197	1190	1186	1179	1174	1169	1151	1169

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

132 ESKDALEMUIR — OCTOBER

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination			Vertical force							
	Maximum 16,000γ +		Minimum 16,000γ +		Range	Maximum 11° +	Minimum 11° +	Range	Maximum 44,000γ +		Minimum 44,000γ +		Range			
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ				°A.
1 *d*	1 16	608	451	10 22	157	5 45	65·3	34·0	4 20	31·3	13 50	1235	1077	6 5	158	4,5,4,3,4,3,3,3	29	1	85·1
2	6 40	573	443	9 48	130	13 39	60·6	38·4	21 8	22·2	15 10	1248	1090	6 55	158	2,4,5,3,3,4,2,3	26	1	85·1
3	18 2	592	477	11 20	115	15 29	58·7	28·1	21 40	30·6	17 59	1301	1147	3 58	154	3,2,3,2,2,4,4,4	24	1	85·1
4	18 22	581	446	23 10	135	13 37	53·2	31·9	22 47	21·3	19 49	1203	1104	23 16	99	2,1,3,2,2,2,4,4	20	1	85·1
5	6 58	558	488	12 42	70	13 32	56·1	38·5	4 1	17·6	17 0	1181	1109	0 1	72	3,3,3,1,3,3,2,1	19	1	85·1
6 *q*	18 53	558	497	11 20	61	14 6	52·9	42·3	8 35	10·6	1 40	1172	1156	11 35	*16*	2,0,0,0,1,1,1,1	6	0	85·1
7	22 56	603	505	10 58	98	13 14	53·6	39·9	21 45	13·7	20 10	1174	1141	23 12	33	1,0,0,0,1,0,3,4	9	1	85·1
8 *q*	23 10	571	508	10 23	63	14 30	54·9	41·2	9 0	13·7	22 42	1166	1144	0 1	22	2,1,1,2,2,0,1,2	11	0	85·1
9 *q*	24 0	569	505	12 23	64	13 49	52·2	42·2	8 41	*10·0*	22 49	1169	1152	13 10	17	1,0,0,2,1,2,2,2	10	0	85·1
10	5 6	580	440	7 10	140	6 46	74·5	40·7	8 33	33·8	20 52	1174	1114	6 53	60	2,3,5,3,3,2,2,3	23	1	85·2
11	16 27	579	469	12 20	110	14 1	62·3	40·3	2 0	22·0	19 0	1198	1151	1 53	47	3,3,3,4.3,4,3,2	25	1	85·1
12	22 36	565	457	11 10	108	12 39	60·5	40·7	22 52	19·8	16 46	1182	1153	0 25	29	1,1,3,4,3,3,1,2	18	1	85·1
13	16 32	570	496	10 13	74	13 56	61·0	41·1	7 59	19·9	18 9	1187	1141	11 53	46	2,2,2,2,3,3,3,2	19	1	85·1
14	21 57	605	361	23 59	244	14 59	59·9	24·5	23 20	35·4	16 42	1217	1077	23 58	140	2,1,2,3,4,3,3,6	24	1	85·2
15 *d*	20 8	593	377	0 1	216	15 13	61·1	22·7	2 23	38·4	15 29	1289	1009	1 26	280	5,4,4,3,5,5,5,2	33	2	85·1
16 *q*	22 58	543	477	11 10	66	12 50	53·2	41·7	8 29	11·5	18 18	1193	1155	4 15	38	1,2,1,0,1,3,3,0	11	0	85·1
17	22 34	*736*	61	23 50	675	13 48	53·1	-0·7	23 27	53·8	8 9	1183	789	24 0	394	0,0,3,2,2,0,2,8	17	2	84·9
18 *d*	23 0	654	*-201*	1 2	*855*	23 29	*92·5*	12·9	1 2	*79·6*	22 27	1262	*578*	0 59	*684*	9,5,5,3,3,5,5,7	42	2	84·8
19 *d*	19 8	556	265	8 42	291	5 22	80·7	14·7	3 8	66·0	15 50	1297	926	5 5	371	5,7,6,5,4,4,4,2	37	2	84·8
20	18 2	602	449	18 18	153	18 12	55·1	36·5	18 49	18·6	16 46	1260	1166	0 1	94	2,2,2,1,3,4,5,3	22	1	84·8
21 *d*	18 6	589	395	12 5	194	5 3	67·7	20·9	20 32	46·8	17 50	*1328*	1072	5 28	256	4,5,5,5,4,4,5,4	36	2	84·8
22	13 33	614	409	10 50	205	13 33	68·5	24·5	19 20	44·0	12 59	1239	1112	21 21	127	0,2,3,4,5,3,4,4	25	1	84·8
23	16 27	637	461	10 30	176	12 9	56·8	27·0	20 13	29·8	16 12	1265	1135	1 22	130	3,2,3,3,4,5,5,3	28	1	84·8
24	19 21	570	471	12 34	99	13 42	56·7	30·0	19 13	26·7	14 38	1251	1128	0 56	123	3,2,3,3,4,4,4,3	26	1	84·8
25	17 2	558	493	14 28	65	13 8	56·5	34·1	21 42	22·4	16 52	1233	1149	0 10	84	3,2,2,1,3,4,1,3	19	1	84·8
26	22 33	578	491	15 59	87	12 21	53·2	33·3	2 18	19·9	16 0	1227	1124	3 2	103	4,3,2,3,3,3,2,4	24	1	84·6
27	13 37	567	465	13 11	102	13 1	61·7	30·1	22 52	31·6	13 47	1270	1115	2 36	155	4,2,2,3,4,2,3,4	24	1	84·6
28	22 47	607	497	12 28	110	13 18	53·1	38·1	22 47	15·0	16 36	1188	1159	23 25	29	1,2,2,2,1,2,2,4	16	1	84·5
29	5 53	552	490	11 58	62	13 22	54·5	38·9	22 24	15·6	16 55	1193	1159	0 20	34	2,2,1,2,2,1,2,3	15	0	84·5
30 *q*	23 14	559	514	11 40	*45*	13 42	51·8	41·5	8 26	10·3	14 16	1181	1161	5 25	20	1,2,1,1,2,1,1,2	11	0	84·5
31	6 18	576	511	13 18	65	3 20	55·7	38·8	20 30	16·9	15 32	1194	1142	4 18	52	2,3,2,1,2,1,3,3	17	1	84·5
Mean	- -	587	425	- -	162	- -	59·9	32·5	- -	27·4	- -	1221	1091	- -	130	-	-	-	84·9

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

133 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — NOVEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	547	547	549	550	552	553	550	545	541	529	524	521	519	520	538	537	531	529	518	537	537	534	487	439	531
2 *d*	537	516	539	545	544	507	496	494	486	486	477	490	501	521	537	525	545	543	501	501	498	521	477	487	511
3	488	481	491	511	521	525	525	521	515	500	496	497	503	508	522	534	535	549	535	509	525	525	525	521	515
4 *q*	524	534	535	534	536	539	544	545	535	525	517	513	513	521	528	537	545	549	550	552	551	550	548	546	536
5 *q*	545	545	546	549	553	553	554	552	539	519	519	518	520	523	531	537	549	552	549	549	550	547	550	550	542
6	548	546	548	553	553	556	558	556	545	534	521	523	525	536	544	551	557	561	561	565	559	565	561	589	551
7	553	549	544	549	556	560	559	560	560	545	533	529	526	537	545	547	549	556	557	555	556	549	561	544	549
8	536	537	560	539	541	543	545	544	541	548	548	540	539	547	550	556	548	560	552	547	561	536	545	545	546
9	540	547	541	546	547	549	545	552	547	532	531	527	522	531	541	536	540	552	543	547	544	555	554	548	542
10	545	541	544	537	544	545	550	549	544	532	524	522	524	530	538	544	547	552	554	556	558	555	559	557	544
11	545	546	542	540	544	546	550	544	532	522	522	524	527	535	543	546	549	555	556	559	556	557	556	553	544
12 *q*	552	552	549	552	555	557	564	559	548	533	524	523	527	526	523	541	547	551	555	557	556	557	555	556	547
13	554	552	552	551	551	549	549	544	540	526	516	515	520	534	547	550	531	542	551	560	572	568	552	548	545
14	564	552	550	552	556	557	556	555	544	527	521	524	528	536	543	547	556	552	554	556	559	564	558	553	549
15	552	556	558	555	559	556	553	550	548	536	527	526	528	535	544	540	551	561	552	541	523	552	558	532	546
16	523	538	552	536	548	547	533	544	539	527	516	509	512	528	541	546	548	548	552	548	551	544	548	554	539
17	545	543	544	545	545	548	568	560	545	516	504	516	516	496	531	528	520	523	531	509	529	532	536	541	532
18	542	545	534	555	545	547	544	532	538	532	522	512	515	512	520	539	528	524	523	524	528	536	530	536	532
19	540	540	542	556	552	560	548	540	526	511	522	520	519	522	527	516	519	538	538	532	519	531	536	545	533
20 *d*	552	532	535	536	548	553	548	533	535	519	507	480	492	504	571	533	539	508	474	473	474	464	471	449	514
21 *d*	488	499	480	476	519	529	488	507	507	497	493	501	494	500	516	522	525	531	532	531	513	524	531	531	*510*
22	545	525	532	535	539	539	538	529	512	503	500	512	492	512	520	515	516	527	536	528	530	536	552	540	526
23	521	519	519	532	536	532	536	534	528	524	516	512	513	514	522	520	525	541	543	537	555	540	536	553	529
24 *d*	537	528	532	536	535	544	548	537	520	520	508	514	524	528	526	528	543	536	536	516	527	500	505	515	527
25 *d*	512	522	525	526	525	523	533	539	518	512	502	492	512	504	505	536	532	548	548	545	521	529	532	530	524
26	537	534	536	537	539	540	540	537	524	488	488	481	486	527	518	532	536	544	546	546	546	542	539	544	529
27	542	544	544	547	551	547	547	537	540	540	524	501	514	527	528	534	531	542	544	545	544	543	543	543	538
28	546	545	548	555	557	563	559	556	529	512	528	537	533	534	542	547	551	548	543	551	547	542	545	542	544
29 *q*	544	543	544	544	537	545	551	551	551	552	547	539	536	541	542	547	550	550	548	550	552	555	550	544	546
30 *q*	545	548	546	544	547	550	552	552	555	552	548	545	544	545	549	547	552	556	560	560	555	554	553	551	*550*
Mean	538	537	539	541	*545*	545	544	542	534	523	517	*515*	517	525	534	537	540	544	541	539	540	540	538	536	536

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

134 ESKDALEMUIR (D) — 11° + — NOVEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	46·2	46·0	45·9	45·9	45·7	45·3	44·7	44·1	43·1	43·3	46·5	49·2	51·2	52·9	53·4	52·5	52·5	50·5	48·9	44·8	44·3	44·0	34·2	25·3	45·9
2 *d*	37·8	34·7	35·1	42·5	44·8	51·1	53·0	49·3	49·5	51·9	51·0	49·5	52·2	53·8	54·0	52·5	51·3	54·1	52·9	43·9	37·4	30·8	32·3	34·0	45·8
3	32·3	32·5	41·0	38·6	41·2	41·1	41·0	40·0	39·6	40·9	44·8	46·7	50·5	52·4	53·4	53·8	54·8	56·5	55·0	48·4	43·9	43·9	43·0	40·7	44·8
4 *q*	41·7	43·2	45·3	45·5	45·7	45·5	45·4	44·8	43·2	43·3	44·8	47·3	48·6	49·6	50·0	49·6	49·3	48·2	47·4	46·6	46·0	45·7	45·4	45·3	46·1
5 *q*	45·7	45·8	46·2	46·3	46·3	45·8	44·7	44·3	43·1	44·6	47·0	49·6	52·2	52·2	52·1	51·1	50·2	48·9	47·6	44·6	43·4	45·7	45·6	45·1	47·0
6	45·7	45·8	45·9	46·1	44·0	44·1	44·0	44·0	43·5	44·2	45·9	48·8	51·1	51·9	52·2	51·1	50·2	49·2	48·8	48·5	47·5	47·1	46·6	41·7	47·0
7	38·5	41·9	43·0	44·7	45·2	45·7	44·6	44·8	43·8	43·8	46·7	50·4	52·1	51·4	52·5	51·5	50·3	49·2	48·9	47·9	47·1	44·6	38·4	38·5	46·1
8	38·1	41·5	38·1	38·8	43·9	45·0	44·8	43·9	44·0	44·4	47·2	50·2	48·9	50·3	50·5	52·0	50·2	52·2	51·1	48·0	41·5	43·5	44·1	42·5	45·6
9	38·8	42·5	44·0	44·8	44·9	44·3	46·0	45·6	45·2	45·1	47·9	48·4	50·7	49·1	50·1	50·3	45·5	45·6	47·8	48·1	44·9	45·7	44·9	43·8	46·0
10	44·8	42·9	42·6	43·9	44·8	44·3	45·1	44·5	44·2	44·6	47·1	48·4	50·2	50·7	50·2	49·9	48·2	47·8	48·6	47·5	47·1	46·1	44·9	43·6	46·3
11	40·5	43·5	45·4	44·9	44·8	44·8	44·8	44·0	42·6	42·5	44·5	48·4	49·5	49·8	49·7	49·3	48·6	48·5	48·3	46·7	45·7	45·5	45·4	45·2	46·0
12 *q*	44·8	45·5	45·3	46·1	45·8	45·6	45·5	44·8	43·9	43·8	45·0	47·6	49·7	50·6	48·6	48·3	47·7	47·5	46·7	46·8	46·2	46·1	45·8	45·8	46·4
13	45·7	45·5	45·2	45·0	45·0	44·7	44·1	43·7	43·0	43·0	44·7	46·6	48·8	50·8	51·2	52·0	51·5	48·9	45·8	44·1	37·6	39·5	41·6	44·6	45·5
14	46·5	45·0	45·0	45·3	45·9	44·9	45·2	43·8	42·7	43·0	44·9	47·6	49·2	50·5	50·2	48·8	48·4	47·1	47·5	47·0	44·9	44·2	45·8	45·3	46·2
15	45·3	45·3	44·8	45·0	43·6	43·9	43·9	43·9	43·0	43·5	45·3	47·5	49·3	51·1	50·9	49·7	48·9	49·1	50·2	36·0	45·7	43·0	34·1	36·7	45·0
16	42·4	45·0	44·5	46·0	45·9	46·6	46·6	44·5	42·5	42·6	44·6	46·8	48·7	51·3	51·1	51·1	49·8	49·3	50·0	47·6	46·6	43·9	43·7	43·3	46·4
17	43·0	42·9	45·0	45·9	48·6	48·8	47·5	49·1	47·1	46·0	47·2	50·3	50·8	52·1	50·0	48·7	42·1	45·8	48·5	44·3	37·0	43·2	43·9	44·5	46·3
18	45·5	44·0	46·3	46·5	45·1	49·3	46·8	47·3	44·8	44·8	46·8	48·4	50·3	48·6	47·6	45·6	48·2	45·4	45·0	45·8	40·3	42·4	43·0	41·7	45·8
19	44·0	44·8	44·0	46·6	47·5	48·6	51·7	48·8	47·3	46·9	46·5	48·9	48·8	50·2	50·6	45·5	47·3	47·7	44·2	38·5	42·2	43·4	42·9	41·3	46·2
20 *d*	42·1	41·7	43·3	47·1	48·0	49·2	48·9	50·4	48·8	47·2	48·5	49·3	55·6	50·3	52·8	48·7	41·9	40·7	40·6	47·1	41·5	32·8	30·5	33·5	45·0
21 *d*	31·3	37·6	34·2	42·1	41·1	49·1	50·2	51·9	47·7	43·8	43·4	46·4	47·0	48·3	48·5	47·0	46·6	46·2	45·0	43·3	41·5	42·8	44·4	45·0	44·3
22	45·7	44·6	44·0	44·9	45·1	45·5	45·3	46·6	46·6	46·8	45·2	49·5	50·4	47·6	50·2	47·4	37·8	42·5	43·6	37·9	44·9	45·0	43·2	38·5	44·9
23	38·7	38·5	43·0	46·8	42·4	45·5	44·8	44·3	42·6	43·5	45·5	47·5	49·5	49·4	50·9	47·4	45·0	47·8	47·0	44·6	40·2	41·7	41·5	42·1	44·6
24 *d*	41·2	43·2	46·0	46·4	46·3	45·9	45·2	45·5	45·3	45·5	44·8	47·2	49·7	50·5	49·7	47·9	46·0	40·7	40·8	42·3	34·0	36·2	41·4	37·7	*44·1*
25 *d*	41·5	45·3	45·4	45·6	46·3	46·7	45·8	46·0	44·5	46·6	47·5	48·9	52·2	50·3	49·4	42·5	48·0	46·7	45·8	46·6	35·3	35·8	41·8	44·0	45·4
26	44·8	45·9	46·4	46·4	45·7	45·5	44·9	44·8	43·9	44·9	47·8	49·5	51·1	52·4	52·0	51·3	48·6	46·6	45·7	45·8	45·1	44·9	45·0	45·5	46·9
27	46·1	45·9	45·8	45·9	45·3	45·0	44·3	45·5	45·6	45·3	47·9	51·8	53·8	53·3	53·5	52·6	51·1	46·6	45·3	45·0	44·8	45·0	45·5	45·7	*47·4*
28	45·8	45·8	45·7	47·9	44·0	43·8	45·1	45·3	45·2	45·7	50·2	48·5	49·5	49·4	49·1	48·4	47·4	46·5	44·1	46·7	46·7	43·1	42·8	45·0	46·2
29 *q*	45·7	44·8	45·9	46·2	45·7	44·1	43·5	44·6	43·7	44·3	46·5	48·2	49·0	49·3	49·1	48·4	48·5	47·6	46·1	45·9	45·3	44·7	44·5	43·3	45·0
30 *q*	43·0	43·1	43·7	44·4	44·3	44·1	44·1	44·3	44·4	44·3	45·3	46·6	47·5	47·5	47·7	47·5	46·8	46·4	46·0	45·8	46·4	46·1	45·7	45·8	46·4
Mean	42·4	43·2	43·9	45·1	45·1	45·8	45·7	45·5	44·4	44·7	46·4	48·5	50·3	50·6	*50·7*	49·4	48·1	47·7	47·1	45·2	43·2	42·9	42·4	*41·8*	45·8

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

135 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — NOVEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	1171	1171	1172	1172	1171	1170	1169	1169	1170	1171	1167	1167	1171	1177	1177	1183	1191	1203	1218	1214	1195	1193	1153	1123	1177
2 *d*	1061	1087	1109	1130	1135	1136	1131	1141	1159	1164	1182	1205	1217	1212	1220	1246	1294	1156	1280	1267	1253	1165	1168	1175	1183
3	1181	1180	1123	1137	1162	1175	1179	1182	1184	1176	1171	1170	1172	1177	1182	1192	1198	1204	1239	1255	1240	1222	1213	1209	1188
4 *q*	1197	1189	1183	1182	1182	1181	1178	1179	1178	1175	1172	1171	1171	1170	1171	1176	1176	1176	1176	1176	1176	1176	1176	1176	1178
5 *q*	1175	1175	1175	1173	1172	1172	1172	1174	1176	1173	1169	1169	1169	1173	1175	1176	1176	1177	1177	1181	1180	1176	1176	1175	1174
6	1172	1172	1171	1170	1169	1169	1168	1169	1174	1171	1165	1163	1163	1165	1169	1169	1168	1168	1169	1169	1170	1169	1170	1153	1168
7	1153	1159	1164	1164	1164	1164	1164	1164	1167	1164	1162	1160	1160	1160	1163	1168	1170	1171	1170	1171	1173	1180	1178	1170	1166
8	1171	1170	1159	1160	1161	1165	1166	1166	1170	1166	1161	1160	1164	1166	1170	1175	1176	1177	1182	1187	1187	1181	1183	1183	1171
9	1189	1175	1172	1171	1170	1170	1170	1169	1172	1172	1168	1170	1172	1173	1173	1177	1184	1182	1182	1183	1185	1177	1175	1175	1175
10	1172	1173	1171	1171	1170	1171	1171	1175	1181	1177	1170	1170	1168	1170	1172	1172	1176	1174	1172	1172	1172	1173	1172	1170	1172
11	1169	1168	1169	1172	1172	1171	1171	1171	1173	1172	1166	1165	1165	1166	1168	1170	1172	1171	1171	1172	1172	1172	1172	1172	1170
12 *q*	1171	1170	1170	1169	1169	1168	1166	1169	1173	1172	1171	1170	1169	1173	1178	1176	1175	1173	1173	1172	1172	1170	1170	1169	1171
13	1170	1170	1170	1170	1170	1169	1170	1171	1173	1173	1171	1170	1170	1172	1173	1176	1178	1181	1180	1176	1176	1161	1160	1165	1171
14	1160	1160	1164	1166	1166	1166	1166	1167	1170	1170	1167	1165	1160	1161	1165	1166	1167	1169	1169	1171	1172	1168	1165	1167	1166
15	1168	1168	1165	1165	1165	1165	1165	1165	1165	1165	1164	1165	1164	1164	1167	1172	1171	1168	1177	1199	1195	1188	1186	1167	1171
16	1166	1160	1140	1142	1152	1157	1162	1168	1174	1173	1172	1168	1166	1165	1170	1172	1172	1173	1173	1177	1177	1176	1173	1168	1167
17	1166	1166	1155	1143	1142	1144	1143	1149	1158	1166	1168	1173	1188	1200	1215	1214	1219	1206	1202	1208	1189	1176	1177	1176	1177
18	1171	1162	1159	1149	1154	1145	1156	1161	1166	1164	1164	1169	1177	1192	1216	1217	1205	1199	1200	1193	1190	1178	1170	1166	1176
19	1169	1172	1170	1154	1121	1130	1137	1146	1156	1165	1166	1166	1170	1176	1188	1202	1203	1194	1193	1197	1188	1186	1178	1175	1171
20 *d*	1158	1159	1164	1159	1151	1149	1149	1154	1161	1165	1169	1188	1199	1222	1246	1319	1322	1281	1298	1295	1225	1216	1185	1169	*1204*
21 *d*	1127	1128	1090	1078	1097	1132	1150	1160	1170	1177	1182	1186	1190	1194	1189	1189	1188	1186	1185	1186	1193	1185	1182	1177	*1163*
22	1160	1153	1166	1172	1174	1175	1174	1176	1175	1176	1178	1177	1188	1193	1189	1200	1213	1210	1201	1199	1186	1182	1177	1160	1181
23	1154	1153	1143	1148	1165	1168	1168	1174	1179	1176	1170	1170	1171	1176	1184	1189	1194	1184	1182	1185	1184	1176	1176	1163	1172
24 *d*	1162	1164	1165	1165	1166	1168	1171	1172	1176	1173	1172	1169	1169	1174	1184	1183	1194	1217	1210	1217	1194	1165	1170	1164	1178
25 *d*	1178	1180	1180	1178	1174	1177	1177	1176	1181	1184	1184	1183	1186	1204	1217	1233	1211	1190	1183	1185	1198	1192	1184	1182	1188
26	1178	1177	1177	1177	1177	1177	1177	1178	1181	1183	1184	1187	1202	1207	1200	1192	1188	1187	1185	1182	1182	1182	1182	1181	1184
27	1176	1176	1174	1173	1172	1172	1173	1174	1172	1173	1172	1177	1181	1184	1189	1193	1193	1190	1184	1182	1181	1178	1178	1177	1179
28	1176	1174	1172	1168	1166	1165	1164	1165	1171	1174	1168	1168	1170	1173	1174	1176	1177	1178	1181	1178	1177	1181	1181	1177	1173
29 *q*	1175	1173	1170	1166	1165	1163	1165	1164	1167	1164	1161	1161	1164	1166	1170	1173	1175	1174	1174	1174	1174	1173	1173	1175	1169
30 *q*	1175	1172	1171	1170	1169	1169	1168	1166	1166	1165	1165	1165	1165	1168	1170	1172	1172	1172	1170	1171	1172	1172	1173	1173	1170
Mean	1166	1165	1161	*1161*	1161	1163	1165	1167	1171	1171	1170	1172	1175	1179	1184	1191	*1193*	1190	1192	1193	1188	1180	1176	1171	1175

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

136 ESKDALEMUIR — NOVEMBER

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200+
	Horizontal force					Declination				Vertical force						
	Maximum 16,000γ +		Minimum 16,000γ +		Range	Maximum 11° +		Minimum 11° +		Range	Maximum 44,000γ +		Minimum 44,000γ +		Range				
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ				°A.
1	19 49	584	408	23 1	176	14 50	54·1	18·9	23 7	35·2	18 58	1225	1110	24 0	115	0,0,1,2,2,2,4,5	16	1	84·4
2 *d*	21 11	649	412	21 40	237	18 9	*62·3*	*10·2*	21 0	*52·1*	16 30	1319	*1037*	0 25	*282*	4,4,4,4,4,4,6,6	36	2	84·4
3	17 48	557	472	1 26	85	18 9	59·3	30·8	1 18	28·5	19 12	1257	1084	2 43	173	4,4,1,2,2,3,4,2	22	1	84·3
4 *q*	19 52	554	509	11 51	45	14 27	50·8	40·2	1 0	10·6	0 1	1202	1169	13 55	33	2,0,2,1,1,1,0,0	7	0	84·3
5 *q*	6 56	556	514	9 36	42	13 19	53·0	42·1	20 22	10·9	19 29	1182	1167	11 5	15	0,0,2,1,0,2,2,1	8	0	84·2
6	23 10	612	521	10 46	91	14 50	52·5	34·8	24 0	17·7	8 55	1175	1144	23 52	31	0,1,1,1,1,0,0,4	8	1	84·2
7	22 32	575	517	11 49	58	12 50	55·5	34·2	0 2	21·3	22 16	1185	1146	0 1	39	3,2,2,3,2,1,1,3	17	1	84·2
8	20 29	583	518	20 0	65	14 18	53·5	35·8	3 1	17·7	20 2	1198	1154	2 48	44	3,3,1,2,2,3,4,3	21	1	84·2
9	0 59	571	509	0 9	62	12 44	52·9	36·0	0 47	16·9	0 15	1194	1167	10 51	27	4,2,2,2,2,3,2,2	19	1	84·2
10	23 10	571	515	11 11	56	14 18	51·5	36·5	2 55	15·0	8 30	1182	1168	4 10	14	2,2,1,2,1,1,1,2	12	1	84·2
11	19 38	564	517	10 15	47	13 42	50·4	38·6	0 28	11·8	9 15	1177	1163	11 20	14	3,1,2,2,1,1,1,0	11	0	84·2
12 *q*	6 34	567	517	14 18	50	13 10	51·2	42·9	8 21	8·3	14 41	1178	1165	6 39	13	0,0,1,1,2,1,0,0	5	0	84·1
13	20 32	583	509	10 52	74	15 53	53·4	34·7	20 12	18·7	17 40	1182	1159	21 48	23	0,0,0,1,2,3,3,3	12	1	84·1
14	21 54	573	516	10 29	57	12 59	51·7	41·3	8 53	10·4	20 22	1173	1157	0 53	16	2,1,2,1,2,2,1,2	13	1	84·1
15	22 47	575	503	20 28	72	18 28	52·2	30·3	19 42	21·9	19 39	1201	1163	5 54	38	2,1,1,2,1,3,4,4	18	1	83·9
16	16 50	569	504	12 2	65	14 2	52·1	39·2	8 41	12·9	19 50	1178	1137	2 42	41	3,3,3,2,3,2,2,2	20	1	83·9
17	6 24	577	476	13 40	101	11 58	54·8	33·4	20 43	21·4	16 20	1223	1138	3 54	85	2,2,2,3,3,3,4,3	22	1	83·9
18	15 3	579	495	14 27	84	14 23	53·2	38·3	20 50	14·9	14 57	1229	1143	5 29	86	3,3,2,2,4,4,3,2	23	1	83·9
19	3 46	577	499	20 29	78	6 27	53·8	32·9	19 32	20·9	16 25	1206	1120	4 30	86	2,3,3,2,2,3,4,3	22	1	83·8
20 *d*	16 51	*666*	385	20 7	*281*	12 33	61·0	26·1	16 54	34·9	16 53	*1377*	1144	6 9	233	3,3,3,4,5,6,6,5	35	2	83·8
21 *d*	5 14	547	*377*	0 2	170	7 15	57·6	24·6	0 8	33·0	13 16	1197	1062	2 56	135	5,5,4,3,3,2,2,2	26	1	83·8
22	22 57	583	457	12 55	126	11 50	54·3	31·3	19 27	23·0	16 47	1218	1142	1 4	76	3,1,3,3,4,4,4,3	25	1	83·9
23	23 0	583	500	11 30	83	13 58	52·8	37·3	22 52	15·5	16 18	1198	1142	2 38	56	3,3,2,2,2,2,3,4	21	1	83·9
24 *d*	15 50	568	447	21 0	121	12 33	51·5	25·9	20 8	25·6	20 8	1240	1151	20 54	89	3,1,2,2,2,4,5,5	24	1	83·9
25 *d*	15 23	582	468	11 20	114	12 9	56·1	27·9	20 30	28·2	15 49	1240	1172	0 1	68	2,1,3,3,3,4,4,3	23	1	83·9
26	14 44	554	463	12 48	91	12 39	56·5	41·6	9 0	14·9	12 26	1225	1176	1 19	49	1,0,2,3,4,2,1,1	14	1	83·8
27	6 39	554	492	11 36	62	14 7	55·0	43·1	6 43	11·9	16 19	1196	1170	6 40	26	0,1,2,3,3,3,0,0	12	1	83·9
28	5 38	568	503	9 53	65	10 19	52·0	42·1	8 25	9·9	21 58	1187	1164	7 22	23	0,2,2,3,1,1,2,2	13	1	83·9
29 *q*	21 54	562	533	4 38	29	13 36	49·7	42·4	6 20	7·3	16 0	1177	1161	10 10	16	1,2,2,1,0,0,1,2	9	0	83·8
30 *q*	20 8	564	540	0 8	*24*	7 59	49·3	42·4	0 34	*6·9*	0 15	1176	1164	11 26	*12*	1,0,1,0,0,1,1,0	4	0	83·8
Mean	- -	577	487	- -	90	- -	53·8	34·5	- -	19·2	- -	1210	1145	- -	65	-	-	0·87	84·0

q denotes an international quiet day and *d* an international disturbed day.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

137 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — DECEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *q*	552	551	553	555	558	556	555	552	549	545	544	541	541	547	557	563	566	568	568	568	568	565	563	562	*556*
2	563	556	552	555	559	563	566	560	556	549	543	541	543	546	545	545	551	554	556	553	550	530	530	531	550
3 *q*	544	547	550	556	555	548	548	555	555	540	540	536	538	541	541	545	552	556	556	558	556	558	550	552	549
4	552	552	553	555	558	559	559	559	552	542	532	536	539	544	547	548	553	550	552	535	534	538	544	531	547
5 *q*	548	551	549	552	556	559	560	559	554	544	545	542	541	539	539	544	551	556	556	552	547	543	547	554	549
6 *d*	551	549	553	557	567	576	559	563	562	564	555	556	544	551	564	556	551	509	524	552	544	540	531	523	550
7	529	523	523	533	540	540	540	544	540	528	528	524	501	531	540	532	531	544	548	524	547	533	534	536	533
8	528	532	539	540	543	548	548	547	537	540	540	536	538	545	545	548	552	551	552	553	551	552	596	534	546
9	540	545	544	545	546	548	546	544	539	536	538	536	539	540	545	549	551	548	542	550	550	556	552	549	545
10	546	545	548	550	553	553	556	557	550	540	535	534	540	548	549	555	542	543	540	538	554	538	544	552	546
11	531	574	539	540	546	550	552	553	551	536	510	520	532	529	532	544	539	547	543	543	550	553	542	542	542
12 *q*	546	545	540	545	549	549	551	550	544	536	532	528	532	540	545	548	549	552	554	554	556	557	557	558	547
13	557	557	561	559	559	559	558	560	560	550	545	549	550	557	566	552	539	531	529	524	548	511	508	515	546
14	518	516	523	522	566	563	560	552	543	499	516	512	515	524	532	532	532	531	524	520	535	540	538	553	532
15	536	540	540	544	548	553	559	556	551	535	526	524	527	529	516	540	544	550	551	551	550	548	552	555	543
16	525	534	542	535	548	556	552	552	551	537	528	525	527	521	522	523	523	531	531	528	544	540	532	550	536
17	535	536	551	553	536	539	540	543	542	532	525	522	525	531	536	540	543	541	542	545	544	543	544	549	539
18	549	541	535	541	546	553	554	550	545	523	518	516	514	514	507	528	540	546	549	549	546	544	546	546	537
19	547	558	548	549	552	542	554	552	539	531	510	515	518	522	530	526	531	542	543	545	540	542	543	545	539
20	544	545	545	547	549	550	550	546	546	549	544	517	524	525	526	523	528	543	549	547	542	549	547	556	541
21 *d*	551	547	548	554	557	558	564	547	518	499	500	500	525	533	517	494	522	498	494	499	506	510	520	526	524
22	530	532	535	531	534	534	537	542	513	508	515	511	504	509	519	529	535	543	541	539	538	537	539	544	529
23	539	540	542	543	544	547	549	551	543	531	519	521	518	521	530	538	544	544	545	546	556	530	530	526	537
24	529	540	545	555	543	531	544	542	537	528	521	521	525	527	536	541	549	553	557	547	547	539	532	543	539
25 *d*	537	533	540	539	543	544	546	547	551	552	551	546	553	550	566	535	572	516	528	507	484	471	500	505	534
26	527	506	535	525	530	528	535	526	520	515	511	509	515	520	526	527	529	530	516	526	499	517	521	527	*522*
27	531	532	534	538	558	553	553	550	543	535	524	522	535	536	537	537	538	535	514	523	531	536	542	544	537
28 *q*	543	543	543	542	544	546	548	549	543	533	531	534	532	534	535	543	551	547	543	537	539	540	546	551	542
29	561	554	547	549	554	560	563	560	547	535	527	521	526	530	530	531	539	545	527	529	530	534	539	544	541
30 *d*	543	543	547	551	551	555	558	552	549	543	538	533	533	545	554	542	526	536	503	499	501	489	478	497	532
31 *d*	524	534	531	535	542	545	554	558	544	486	499	510	519	521	514	511	511	531	535	534	535	531	533	536	528
Mean	541	542	543	545	549	551	*552*	551	544	533	529	*527*	529	534	537	538	541	541	539	538	539	536	538	540	540

531 at 0-1h. January 1, 1949.

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

138 ESKDALEMUIR (D) — 11° + — DECEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 *q*	45·7	45·3	46·0	46·2	46·1	45·5	45·0	45·3	44·8	44·8	46·5	47·3	47·8	48·2	48·3	48·4	48·0	47·5	47·3	46·4	45·8	46·1	45·6	45·7	*46·4*
2	45·7	43·8	44·6	44·7	45·5	45·6	44·6	44·4	43·9	44·5	46·1	47·2	47·9	47·7	47·1	47·3	46·7	45·9	46·4	45·7	43·9	38·4	39·7	40·3	44·9
3 *q*	44·8	45·8	46·5	47·5	43·3	43·9	43·5	45·6	45·3	44·9	46·7	47·8	47·6	48·2	48·1	48·4	47·6	46·9	46·3	45·7	45·3	44·8	44·8	45·2	46·0
4	45·3	45·3	45·6	45·7	45·4	45·2	44·8	44·7	44·1	44·6	45·0	46·7	47·9	47·9	47·5	47·3	46·7	47·4	47·0	44·8	42·2	43·5	43·0	40·1	45·3
5 *q*	40·4	43·9	45·3	44·3	15·0	45·7	45·3	45·3	45·5	46·2	46·8	47·9	48·7	48·9	48·6	48·5	47·9	47·3	46·8	46·3	45·0	41·1	42·2	42·5	45·6
6 *d*	42·2	43·2	45·9	46·6	45·0	42·7	42·0	44·3	44·3	45·3	46·2	47·2	48·4	49·5	52·1	53·2	58·6	49·3	52·0	37·8	34·9	36·7	38·5	44·4	45·4
7	43·9	42·3	41·9	43·0	43·8	44·3	44·6	45·7	45·5	44·2	46·4	47·6	50·4	51·5	50·2	51·3	47·7	43·9	46·9	39·9	30·8	43·0	41·8	40·8	44·6
8	40·3	43·3	45·0	44·1	44·6	44·4	43·9	44·0	44·1	44·0	45·5	47·3	48·4	48·5	48·4	48·4	48·3	47·5	46·7	46·6	43·9	42·9	37·6	40·2	44·9
9	44·0	44·6	43·3	45·7	44·2	43·5	43·5	43·2	44·8	46·6	46·1	47·6	47·6	47·7	48·1	47·6	47·2	47·5	46·7	46·7	45·4	44·1	44·7	44·8	45·6
10	44·9	44·9	44·9	44·0	43·8	44·1	44·6	44·6	44·5	44·2	45·5	47·3	48·6	48·8	47·8	48·6	47·3	49·2	49·1	46·7	37·8	44·0	44·5	41·5	45·5
11	42·3	44·3	41·6	44·5	44·6	45·2	45·0	44·3	43·9	43·9	46·3	48·9	49·4	49·4	48·1	47·2	45·7	41·3	47·0	45·0	43·5	40·3	41·6	44·8	44·9
12 *q*	45·4	45·0	45·5	45·7	45·0	44·8	45·2	45·0	43·8	43·9	45·0	47·2	47·7	48·2	47·9	47·3	46·6	46·1	45·8	45·0	45·0	44·9	45·2	45·4	45·7
13	45·8	45·7	45·7	45·6	45·5	45·1	45·0	44·6	44·3	44·0	44·8	46·7	48·3	49·3	49·3	48·3	52·0	52·8	52·2	44·3	41·5	44·6	35·9	34·9	45·7
14	39·5	36·7	41·6	43·9	37·5	39·5	45·8	44·3	45·0	46·0	47·5	48·6	50·8	51·3	52·0	50·7	49·7	49·4	44·8	36·6	43·8	43·5	42·9	38·7	44·6
15	43·8	45·7	46·0	46·1	45·9	45·6	45·4	45·4	44·4	42·8	43·6	45·3	47·2	48·3	48·0	48·5	47·3	47·0	46·3	46·1	45·2	44·7	39·4	32·8	45·0
16	41·3	38·7	40·0	42·3	45·6	44·7	45·0	44·5	44·3	41·9	42·8	45·5	47·0	49·0	48·3	48·8	50·6	49·9	44·4	45·6	45·2	44·0	40·9	36·8	44·5
17	42·3	41·6	37·6	42·2	45·1	45·8	45·2	45·0	44·0	43·1	43·9	45·6	47·0	48·4	48·5	47·9	46·8	45·7	45·3	45·2	43·8	44·6	44·6	44·2	44·7
18	42·7	42·8	44·9	46·7	46·0	45·6	45·3	44·8	44·1	43·2	44·1	46·7	48·5	49·9	49·2	48·7	47·0	45·9	45·3	45·2	44·9	44·2	44·4	44·8	45·6
19	45·1	43·9	43·8	44·9	45·6	46·0	45·8	45·5	44·3	44·3	44·8	47·6	49·2	50·8	50·3	48·2	47·5	46·0	45·6	45·3	44·7	44·4	44·8	44·2	45·9
20	44·7	45·0	45·2	45·5	45·0	45·0	44·8	44·6	44·0	44·0	45·0	47·6	49·6	49·1	50·0	48·2	46·4	45·7	45·3	44·4	43·5	43·8	43·9	42·5	45·5
21 *d*	40·4	44·5	45·1	48·4	44·6	43·9	48·0	50·5	46·0	45·3	44·6	45·1	47·8	50·0	52·7	51·2	55·9	48·9	46·9	42·9	40·2	37·8	40·6	43·2	46·0
22	44·6	46·4	46·7	46·1	45·3	44·6	44·3	45·6	43·6	44·9	44·8	46·3	47·8	48·9	48·8	47·5	46·4	43·4	45·6	45·1	44·1	43·5	41·8	39·9	45·3
23	42·5	44·2	44·5	44·2	44·4	44·3	44·1	44·3	43·5	43·4	44·6	46·1	47·6	49·4	47·9	47·1	47·6	47·0	46·8	46·2	42·5	41·6	40·1	40·7	44·8
24	40·7	43·6	45·7	41·7	47·4	52·6	52·5	44·9	42·7	42·4	43·6	45·8	47·6	48·8	49·1	48·6	47·6	48·2	49·5	47·2	46·9	44·3	44·0	44·6	46·3
25 *d*	44·3	44·0	42·5	42·4	42·3	42·5	44·2	44·0	44·0	45·1	48·0	47·1	49·9	49·7	55·4	50·8	55·2	48·6	58·4	48·1	40·8	34·6	34·7	37·1	45·6
26	32·9	41·5	50·9	43·3	45·0	46·4	45·9	44·8	43·8	43·3	44·2	45·5	46·4	46·9	47·1	46·4	45·2	44·7	40·4	44·7	44·2	43·5	42·4	43·3	*44·3*
27	44·9	45·3	44·8	45·1	45·1	42·4	44·8	46·8	47·6	46·8	46·2	45·3	47·4	47·9	48·7	47·4	46·0	45·3	41·6	46·1	44·4	42·5	43·8	44·3	45·4
28 *q*	45·1	45·2	45·2	45·1	45·2	44·9	44·6	44·3	43·9	43·5	44·5	46·6	48·2	48·7	47·9	46·8	46·0	45·8	45·2	45·1	43·3	41·8	43·8	43·9	45·2
29	43·8	43·4	43·6	44·1	43·8	44·3	44·9	44·8	44·7	44·7	45·1	47·0	48·6	49·5	50·9	51·0	47·2	46·7	46·1	44·3	41·8	39·1	43·5	43·8	45·3
30 *d*	44·4	45·2	45·5	46·3	44·6	43·5	43·5	43·6	43·6	43·5	46·2	48·3	48·5	49·4	51·4	52·5	48·5	57·0	48·7	43·3	38·1	39·0	49·8	38·4	45·9
31 *d*	41·7	41·2	44·9	46·0	46·7	46·0	46·2	46·1	45·7	45·3	48·0	47·9	47·7	48·8	47·0	51·4	47·9	44·4	45·8	44·6	43·9	43·3	43·2	42·0	45·7
Mean	43·1	43·7	44·5	44·9	44·7	44·8	45·1	45·0	44·5	44·3	45·4	46·9	48·2	49·0	*49·2*	48·8	48·4	47·2	46·9	44·7	42·8	42·4	42·4	*41·8*	45·4

41·1 at 0-1h. January 1, 1949.

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

139 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — DECEMBER

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 *q*	1172	1171	1170	1169	1168	1166	1166	1166	1169	1168	1166	1166	1170	1170	1169	1170	1170	1169	1168	1168	1168	1167	1167	1167	1168
2	1166	1167	1170	1168	1167	1165	1165	1165	1166	1164	1164	1166	1169	1172	1172	1172	1172	1172	1170	1170	1170	1175	1172	1172	1169
3 *q*	1170	1169	1167	1164	1160	1162	1162	1160	1158	1160	1165	1170	1176	1176	1176	1177	1174	1172	1171	1170	1169	1169	1169	1169	1168
4	1170	1170	1170	1170	1169	1168	1168	1166	1168	1164	1161	1164	1167	1169	1170	1173	1172	1173	1173	1177	1181	1177	1176	1174	1170
5 *q*	1169	1165	1165	1162	1163	1164	1162	1162	1161	1160	1158	1161	1165	1168	1170	1170	1171	1171	1171	1172	1173	1177	1172	1162	1166
6 *d*	1161	1160	1160	1162	1154	1150	1153	1154	1154	1154	1156	1158	1159	1159	1161	1171	1198	1234	1231	1234	1186	1166	1164	1172	1171
7	1176	1153	1148	1162	1161	1158	1162	1165	1166	1170	1168	1171	1177	1180	1178	1187	1189	1187	1182	1192	1190	1176	1177	1177	1173
8	1180	1178	1177	1176	1175	1172	1171	1169	1170	1169	1170	1171	1171	1172	1170	1172	1172	1172	1172	1173	1176	1176	1161	1164	1172
9	1168	1170	1170	1167	1168	1167	1167	1166	1168	1167	1166	1168	1168	1168	1171	1172	1172	1173	1177	1177	1176	1172	1171	1171	1170
10	1170	1170	1170	1170	1168	1167	1166	1166	1169	1170	1169	1168	1170	1167	1170	1171	1176	1178	1181	1184	1183	1176	1172	1170	1172
11	1164	1133	1146	1158	1166	1168	1168	1168	1170	1167	1166	1162	1167	1170	1179	1182	1184	1190	1182	1182	1180	1171	1172	1171	1169
12 *q*	1170	1170	1170	1169	1168	1167	1167	1167	1171	1172	1170	1169	1170	1172	1172	1172	1171	1171	1171	1170	1170	1170	1170	1169	1170
13	1166	1166	1166	1165	1165	1164	1163	1164	1165	1166	1168	1166	1165	1165	1169	1177	1189	1209	1225	1229	1211	1176	1181	1173	1177
14	1166	1161	1164	1142	1107	1119	1132	1152	1161	1171	1167	1171	1174	1182	1188	1190	1193	1202	1216	1215	1191	1184	1183	1175	1171
15	1166	1167	1169	1169	1169	1168	1166	1169	1170	1172	1172	1176	1172	1173	1184	1185	1180	1175	1174	1173	1173	1172	1174	1167	1172
16	1161	1160	1159	1163	1165	1165	1166	1167	1167	1172	1172	1173	1172	1172	1186	1193	1196	1210	1208	1200	1184	1178	1177	1169	1176
17	1165	1164	1148	1145	1153	1160	1165	1168	1171	1172	1169	1167	1168	1168	1170	1172	1172	1171	1168	1168	1170	1168	1168	1162	1165
18	1156	1156	1159	1160	1161	1161	1162	1163	1164	1169	1170	1170	1167	1167	1179	1179	1176	1173	1170	1169	1169	1169	1168	1167	1167
19	1164	1160	1160	1159	1158	1159	1158	1158	1163	1162	1162	1162	1164	1165	1170	1179	1179	1173	1174	1172	1172	1169	1168	1166	1166
20	1165	1165	1164	1164	1164	1164	1164	1164	1165	1161	1159	1160	1162	1162	1168	1178	1178	1178	1173	1173	1173	1170	1169	1166	1167
21 *d*	1159	1160	1161	1159	1159	1161	1158	1156	1165	1167	1167	1173	1171	1167	1179	1211	1229	1236	1229	1223	1210	1191	1181	1174	1181
22	1169	1167	1167	1170	1173	1176	1175	1171	1177	1173	1174	1175	1174	1179	1179	1181	1182	1181	1178	1178	1178	1174	1173	1168	1175
23	1164	1165	1167	1168	1169	1170	1169	1168	1169	1168	1164	1162	1161	1162	1168	1173	1173	1173	1173	1173	1173	1177	1173	1163	1169
24	1162	1163	1155	1152	1129	1115	1122	1145	1159	1168	1168	1165	1164	1165	1167	1168	1170	1170	1170	1174	1178	1182	1183	1178	*1161*
25 *d*	1174	1173	1172	1169	1168	1168	1167	1165	1162	1163	1158	1162	1163	1167	1177	1196	1264	1287	1259	1268	1276	1245	1199	1184	*1195*
26	1165	1150	1134	1146	1158	1163	1167	1170	1174	1179	1179	1179	1178	1179	1179	1179	1179	1179	1189	1192	1190	1190	1186	1181	1174
27	1178	1175	1175	1172	1161	1154	1155	1156	1160	1166	1168	1172	1168	1172	1179	1182	1179	1179	1189	1187	1185	1179	1174	1173	1172
28 *q*	1172	1170	1169	1169	1169	1169	1169	1170	1173	1172	1170	1168	1167	1169	1174	1176	1173	1173	1173	1177	1178	1176	1172	1168	1171
29	1160	1156	1160	1162	1163	1162	1161	1161	1163	1168	1169	1168	1168	1172	1179	1183	1179	1178	1183	1185	1184	1179	1173	1171	1170
30 *d*	1168	1167	1166	1164	1164	1163	1162	1162	1162	1162	1161	1162	1166	1165	1168	1177	1201	1213	1245	1242	1232	1204	1149	1161	1179
31 *d*	1152	1156	1167	1172	1173	1173	1169	1167	1172	1175	1182	1183	1183	1189	1205	1220	1247	1214	1191	1185	1181	1179	1178	1176	1183
Mean	1168	1164	1163	1163	1162	*1161*	1162	1163	1166	1167	1167	1168	1169	1170	1175	1180	1186	1188	1188	*1189*	1185	1179	1173	1170	1172

1174 at 0-1h. January 1, 1949.

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

140 ESKDALEMUIR — DECEMBER

	TERRESTRIAL MAGNETIC ELEMENTS												3-hr. range indices *K*	Sum of *K* indices	Magnetic character of day (0-2)	Temperature in magnet house 200 +
	Horizontal force					Declination			Vertical force							
	Maximum 16,000γ +		Minimum 16,000γ +		Range	Maximum 11° +	Minimum 11° +	Range	Maximum 44,000γ +		Minimum 44,000γ +		Range			
	h. m.	γ	γ	h. m.	γ	h. m.	′	′	h. m.	′	h. m.	γ	γ	h. m.	γ					°A.
1 *q*	18 44	572	537	12 20	35	4 31	51·1	43·8	9 26	7·3	0 1	1173	1164	11 12	9	0,0,0,0,2,0,0,0	2	0	83·7
2	6 8	568	523	21 13	45	13 12	49·5	35·9	21 27	13·6	21 30	1177	1163	9 36	14	2,1,0,1,1,0,2,3	10	1	83·6
3 *q*	21 15	562	535	11 52	*27*	3 12	50·2	42·0	4 47	8·2	15 28	1178	1157	8 24	21	2,3,2,2,1,0,0,1	11	0	83·6
4	7 10	562	519	23 37	43	18 52	48·6	37·6	23 44	11·0	20 15	1182	1160	10 10	22	0,0,0,1,0,1,3,3	8	1	83·5
5 *q*	6 18	563	533	21 3	30	13 6	49·6	38·8	0 4	10·8	21 8	1178	1156	10 32	22	3,1,0,1,1,1,2,2	11	0	83·5
6 *d*	20 17	591	472	17 6	119	17 0	66·0	28·5	20 14	37·5	17 7	1250	1149	5 19	101	2,3,2,2,3,4,5,4	25	1	83·5
7	20 27	583	476	12 42	107	5 22	52·5	*23·2*	20 18	29·3	20 3	1200	1149	2 2	61	3,3,3,2,4,3,5,2	25	1	83·5
8	22 16	628	522	23 29	106	13 54	50·1	32·2	22 10	17·9	0 49	1182	1156	23 5	26	3,1,1,1,1,0,2,4	13	1	83·4
9	21 19	560	519	11 59	41	11 43	49·6	42·2	2 15	7·4	18 58	1178	1165	10 21	13	2,2,1,2,2,2,2,1	14	0	83·3
10	20 41	577	524	20 4	53	18 3	50·4	31·9	20 29	18·5	20 21	1188	1165	7 41	23	0,0,1,1,1,3,4,3	13	1	83·3
11	1 17	600	504	10 34	96	11 45	52·5	35·0	17 10	17·5	17 9	1195	1128	1 30	67	4,2,1,3,2,3,2,3	20	1	83·2
12 *q*	23 9	560	524	11 48	36	13 12	48·6	43·0	9 2	*5·6*	9 30	1173	1166	7 0	*7*	0,0,0,1,1,0,0,0	2	0	83·2
13	21 0	594	481	21 33	113	18 42	55·0	32·0	23 10	23·0	19 6	1244	1162	7 12	82	1,0,1,1,2,3,4,5	17	1	83·2
14	4 3	595	480	9 25	115	14 4	53·2	32·1	19 35	21·1	18 48	1224	*1104*	4 32	120	3,4,3,3,3,2,4,3	25	1	83·2
15	23 34	569	507	14 22	62	13 59	49·9	31·1	23 29	18·8	15 28	1188	1165	23 36	23	2,2,1,1,2,2,0,4	14	1	83·2
16	23 19	588	504	18 40	84	17 40	54·7	34·7	23 35	20·0	18 42	1218	1157	1 3	61	3,3,2,2,2,3,4,4	23	1	83·2
17	3 20	564	519	11 40	45	14 10	48·8	33·8	2 9	15·0	16 38	1173	1142	3 33	31	3,3,1,1,1,0,1,2	12	1	83·2
18	6 28	558	494	14 28	64	12 48	50·8	41·6	0 53	9·2	15 0	1183	1155	1 0	28	2,2,1,1,2,3,0,1	12	1	83·2
19	1 32	565	502	10 43	63	12 58	51·5	42·7	1 59	8·8	15 40	1182	1156	4 45	26	2,2,2,2,1,2,0,1	12	0	83·2
20	23 50	570	496	11 40	74	13 35	51·1	39·1	24 0	12·0	15 38	1180	1158	10 52	22	0,0,1,3,2,4,1,2	13	1	83·1
21 *d*	6 22	570	462	15 4	108	16 0	58·6	36·3	21 28	22·3	17 1	1253	1152	7 23	101	3,2,3,3,3,4,4,3	25	1	83·1
22	23 39	555	495	8 59	60	13 45	49·8	37·8	22 59	12·0	17 22	1183	1165	24 0	18	2,1,3,3,2,2,0,2	15	1	83·1
23	20 20	588	501	12 19	87	13 27	49·9	36·5	20 14	13·4	20 5	1178	1160	12 55	18	1,0,2,1,2,1,3,2	12	1	83·1
24	5 14	587	480	5 52	107	5 7	61·8	39·4	8 51	22·4	22 50	1185	1108	5 18	77	3,5,4,2,1,1,2,2	20	1	83·2
25 *d*	16 54	*730*	*431*	20 59	*299*	14 40	*66·6*	28·3	17 13	*38·3*	17 4	*1404*	1156	10 12	*248*	2,2,2,3,4,6,5,4	28	2	83·2
26	19 35	559	473	20 11	86	2 23	56·6	28·5	0 31	28·1	19 9	1202	1122	2 45	80	5,3,2,0,1,0,4,2	17	1	83·1
27	4 39	563	509	18 18	54	13 45	50·0	40·4	18 36	9·6	18 52	1191	1152	5 23	39	1,3,2,2,1,2,3,2	16	1	83·1
28 *q*	23 50	556	528	11 8	28	13 19	49·2	40·8	21 32	8·4	20 21	1179	1163	12 27	16	0,0,0,1,0,1,1,2	5	0	83·1
29	0 37	566	516	11 42	50	15 1	52·3	35·4	21 4	16·9	19 0	1187	1155	1 10	32	2,1,1,1,2,2,3,3	15	1	83·1
30 *d*	17 10	575	448	22 25	127	17 38	61·5	31·5	22 41	30·0	20 10	1264	1133	22 35	131	0,2,0,1,2,4,4,4	17	1	83·1
31 *d*	7 4	564	435	9 53	129	15 59	55·1	37·7	16 52	17·4	16 44	1280	1146	0 59	134	4,2,2,5,3,4,1,1	22	1	83·1
Mean	- -	579	498	- -	80	- -	53·1	35·9	- -	17·1	- -	1205	1151	- -	54	-	-	0·81	83·3

q denotes an international quiet day and *d* an international disturbed day.

DIURNAL INEQUALITIES OF THE GEOGRAPHICAL COMPONENTS OF MAGNETIC FORCE

ALL DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

141 ESKDALEMUIR

NORTH COMPONENT

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	+4·4	+3·9	+3·3	+5·5	+7·8	+11·5	*+12·1*	+9·7	+5·5	-3·8	-9·4	-14·0	*-16·6*	-14·4	-12·1	-5·1	-4·1	-1·7	-0·7	-0·8	+2·5	+6·4	+4·8	+5·5
Feb.	+7·5	+8·2	+8·0	+6·9	+8·7	+13·9	*+16·2*	+12·6	+4·5	-7·2	-17·0	-22·5	*-25·2*	-21·6	-16·3	-11·0	-5·6	-1·9	+4·3	+6·4	+7·2	+7·7	+8·7	+7·4
Mar.	+11·0	+8·9	+5·6	+7·4	+11·9	+8·0	+4·8	+6·2	-2·4	-15·6	-28·4	*-34·6*	-30·7	-20·3	-12·6	-5·3	+1·7	+7·7	+13·7	+12·6	*+16·2*	+11·2	+12·3	+10·9
Apr.	+12·9	+8·7	+7·3	+10·1	+9·3	+10·7	+12·6	+5·3	-6·7	-23·6	-38·5	*-41·9*	-40·1	-29·9	-19·0	-3·4	+9·0	+15·8	+17·2	*+19·2*	+17·1	+15·0	+15·9	+16·9
May	+5·4	+4·5	+2·7	+7·5	+2·2	+5·6	-3·5	-10·5	-21·5	-32·9	-42·3	*-46·1*	-37·6	-27·1	-11·2	+3·1	+18·1	+37·8	*+43·1*	+34·5	+26·0	+18·6	+14·9	+8·8
June	+6·6	+6·8	+6·3	+8·6	+7·8	+5·7	-0·4	-7·7	-20·1	-33·2	*-42·9*	-42·4	-33·7	-27·1	-9·8	+6·7	+17·5	+24·7	+29·4	*+30·6*	+26·9	+17·5	+12·8	+9·1
July	+6·1	+6·3	+6·6	+8·7	+10·7	+10·2	+1·1	-7·4	-19·3	-30·1	-37·0	*-38·3*	-33·8	-25·3	-12·7	+2·3	+10·2	+22·1	+27·6	*+28·3*	+23·9	+17·4	+13·7	+9·0
Aug.	+5·5	+6·2	+6·9	+8·0	+9·3	+4·3	-6·4	-20·4	-26·2	-33·5	*-38·1*	-32·1	-27·8	-11·1	-4·2	+6·8	+13·3	+22·5	+29·3	*+30·3*	+23·8	+12·5	+11·5	+9·6
Sept.	+9·1	+10·2	+12·7	+12·2	+11·1	+9·4	+7·3	+2·3	-10·6	-23·6	-30·8	*-34·8*	-31·1	-22·5	-12·0	-6·5	+4·0	+9·7	+15·2	*+15·3*	+14·1	+13·4	+14·2	+11·4
Oct.	-6·5	+3·1	+9·1	+11·9	+10·5	+12·7	+10·2	+4·2	-5·2	-18·9	-29·9	*-36·7*	-31·5	-18·6	-9·2	+0·5	+9·1	+10·4	+13·5	+14·0	+13·1	+10·9	*+22·5*	+0·7
Nov.	+6·0	+3·8	+4·9	+5·8	+9·4	*+9·6*	+8·6	+6·5	+0·2	-10·9	-18·3	*-22·5*	-22·1	-15·5	-5·9	-1·9	+1·8	+6·7	+4·4	+4·4	+6·8	+7·3	+6·1	+4·5
Dec.	+2·8	+3·6	+3·9	+5·4	+9·9	+11·1	*+12·3*	+11·1	+5·2	-5·9	-11·0	*-14·2*	-13·0	-9·4	-6·6	-5·5	-1·5	-0·6	-2·2	-1·3	+2·1	-1·0	+1·2	+3·5
Year	+5·9	+6·2	+6·4	+8·1	+9·0	+9·4	+6·2	+1·1	-8·1	-19·9	-28·7	*-31·8*	-28·7	-20·2	-10·9	-1·7	+6·2	+12·8	*+16·3*	+16·1	+15·0	+11·4	+11·6	+8·1
Winter	+5·2	+4·9	+5·1	+5·9	+9·0	+11·5	*+12·3*	+10·0	+3·8	-6·9	-13·9	-18·3	*-19·3*	-15·3	-10·2	-5·9	-2·4	+0·7	+1·5	+2·1	+4·7	+5·1	+5·2	+5·3
Equinox	+6·7	+7·8	+8·7	+10·4	+10·7	+10·2	+8·7	+4·5	-6·2	-20·4	-31·9	*-37·0*	-33·4	-22·9	-13·2	-3·7	+6·0	+10·8	+14·9	+15·3	+15·2	+12·6	*+16·2*	+10·0
Summer	+6·0	+6·0	+5·6	+8·2	+7·5	+6·5	-2·3	-11·5	-21·7	-32·5	*-40·1*	-39·7	-33·2	-22·7	-9·5	+4·7	+14·8	+26·8	*+32·3*	+31·0	+25·2	+16·5	+13·2	+9·1

WEST COMPONENT

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	-9·9	-9·4	-6·6	-4·9	-1·4	-1·1	-2·2	-3·3	-6·1	-7·6	-2·1	+6·4	+12·5	+17·6	*+19·4*	+16·4	+13·8	+10·5	+6·4	-1·4	-9·0	-12·3	*-13·0*	-12·9
Feb.	-8·9	-10·0	-7·2	-4·4	-2·3	-3·4	-2·8	-4·4	-9·8	-11·5	-5·7	+4·2	+14·2	+21·3	*+22·6*	+18·5	+11·7	+9·9	+7·6	+3·5	-4·4	-9·0	*-15·0*	*-15·0*
Mar.	-10·5	-10·0	-13·9	-8·3	-4·9	-4·2	-3·8	-12·6	-17·5	*-18·6*	-11·8	+5·3	+23·1	*+31·6*	*+31·6*	+26·0	+15·2	+6·8	+3·5	+0·8	-5·2	-6·9	-8·9	-6·7
Apr.	-4·7	-10·4	-8·9	-8·1	-7·4	-10·0	-18·7	-27·6	*-32·1*	-29·3	-17·7	+2·1	+21·9	*+33·0*	+32·0	+26·8	+20·5	+13·2	+8·0	+5·4	+4·5	+5·5	+2·4	-0·3
May	-2·9	-6·7	-7·7	-9·9	-9·8	-19·4	-27·1	-31·1	*-35·3*	-28·6	-17·6	+1·0	+19·0	+28·6	*+32·1*	+28·2	+22·7	+20·1	+14·6	+10·4	+7·5	+8·4	+4·2	-0·6
June	-1·9	-6·6	-9·6	-11·9	-19·7	-28·6	-36·1	*-40·4*	-37·9	-29·9	-12·5	+7·8	+25·9	+33·4	*+37·4*	+34·0	+26·4	+20·2	+15·3	+13·2	+10·5	+6·9	+2·3	+1·9
July	-2·9	-10·3	-12·3	-14·3	-17·7	-27·0	-34·1	-35·8	*-36·5*	-25·3	-12·1	+7·5	+24·1	+32·0	*+33·2*	+29·1	+23·1	+20·4	+15·3	+13·3	+10·2	+10·0	+7·4	+2·9
Aug.	-10·7	-12·3	-11·5	-13·4	-12·3	-18·8	-24·2	-25·5	*-31·0*	-22·1	- 6·3	+14·5	+29·8	*+36·7*	+35·7	+29·7	+19·4	+13·6	+11·5	+6·2	+6·2	-0·7	-6·2	-8·3
Sept.	-14·0	-10·2	-9·7	-15·8	-13·3	-8·5	-11·7	-17·7	*-21·3*	-16·4	-6·3	+10·2	+24·6	+31·5	*+32·6*	+24·8	+15·8	+10·6	+7·3	+5·8	+1·8	-4·2	-4·9	-11·1
Oct.	*-19·7*	-14·9	-11·4	-8·1	-3·2	+5·5	+7·0	-2·1	-12·5	-10·8	-1·5	+12·3	+23·8	*+30·7*	+27·8	+22·1	+8·5	+6·2	+0·8	-3·6	-9·9	-15·2	-15·0	-16·8
Nov.	-15·4	-12·3	-8·6	-2·5	-1·6	+1·8	+1·3	-0·4	-6·9	-8·0	-1·1	+8·3	+17·2	+20·2	*+22·7*	+17·2	+11·5	+10·4	+7·2	-2·2	-11·7	-12·9	-15·6	*-18·7*
Dec.	-10·6	-7·1	-3·3	-1·1	-0·5	-0·7	+1·1	+0·5	-3·4	-6·2	-1·9	+4·7	+11·4	+15·9	*+17·4*	+15·9	+14·4	+8·8	+6·9	-3·3	-12·8	-14·7	-14·4	*-16·8*
Year	-9·3	-10·0	-9·2	-8·6	-7·8	-9·5	-12·6	-16·7	*-20·9*	-17·9	-8·1	+7·0	+20·6	+27·7	*+28·7*	+24·1	+16·7	+12·6	+8·7	+4·0	-1·0	-3·8	-6·4	-8·5
Winter	-11·2	-9·7	-6·4	-3·2	-1·4	-0·8	-0·6	-1·9	-6·6	-8·3	-2·7	+5·9	+13·8	+18·7	*+20·5*	+17·0	+12·8	+9·9	+7·0	-0·9	-9·5	-12·3	-14·5	*-15·8*
Equinox	-12·2	-11·3	-10·9	-10·1	-7·2	-4·3	-6·8	-15·0	*-20·9*	-18·8	-9·3	+7·4	+23·3	*+31·7*	+31·0	+24·9	+15·0	+9·2	+4·9	+2·1	-2·2	-5·2	-6·6	-8·7
Summer	-4·6	-9·0	-10·3	-12·3	-14·9	-23·4	-30·4	-33·2	*-35·3*	-26·5	-12·1	+7·7	+24·7	+32·6	*+34·6*	+30·3	+22·9	+18·6	+14·1	+10·8	+8·6	+6·2	+1·9	-1·1

VERTICAL COMPONENT

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	*γ*	γ	γ	γ	γ	γ
Jan.	-3·4	-5·3	-6·3	-6·3	-8·1	*-9·3*	-8·3	-6·3	-5·1	-6·1	-6·3	-6·0	-4·9	-3·7	+2·6	+9·1	+10·2	+13·6	*+15·6*	+15·1	+11·1	+5·6	+2·8	-0·3
Feb.	-6·1	-6·9	*-7·9*	-7·4	-7·1	-6·8	-6·6	-5·9	-4·7	-5·1	-6·4	-7·2	-5·8	-0·9	+4·4	+10·9	*+14·5*	+14·1	+10·5	+10·4	+10·0	+7·0	+3·8	-0·8
Mar.	-7·9	-9·9	-9·3	-8·9	-13·1	*-14·1*	-11·8	-6·2	-3·5	-4·9	-7·2	-9·2	-8·6	-1·8	+5·8	+14·4	+23·4	*+23·9*	+20·9	+13·6	+11·5	+4·5	+1·2	-2·8
Apr.	-4·5	-10·0	-6·8	-5·6	-8·2	-6·3	-2·3	+1·0	+0·4	-5·2	-9·4	*-14·4*	*-14·4*	-8·6	-0·3	+6·0	+12·8	*+17·5*	+17·4	+14·4	+11·0	+7·8	+5·8	+1·9
May	-7·3	-12·6	*-18·0*	-15·3	-11·1	-9·8	-4·6	-3·2	-3·8	-9·6	-12·6	-16·1	-13·0	-4·7	+4·2	+13·0	+20·5	+25·1	*+27·2*	+24·8	+17·5	+10·0	+4·1	-4·7
June	-0·8	-3·4	-5·1	-4·6	-2·2	+0·7	+1·1	+0·8	-2·1	-8·5	-15·1	*-20·3*	-19·6	-13·8	-6·6	+2·0	+11·1	+17·1	*+18·5*	+17·3	+14·1	+10·3	+6·5	+2·6
July	-2·0	-3·4	-4·9	-3·5	-2·2	-0·2	+0·4	-1·9	-4·8	-10·0	-14·8	*-18·3*	-16·3	-8·8	-2·7	+4·9	+12·0	+15·6	*+17·4*	+15·3	+13·1	+8·7	+4·7	+1·7
Aug.	-8·7	-13·2	-12·6	-12·3	*-14·4*	-11·3	-10·2	-11·4	-9·4	-8·9	-11·1	-13·6	-9·3	+1·0	+11·7	+23·7	*+28·0*	+27·8	+23·9	+21·7	+12·5	+3·4	-1·0	-6·3
Sept.	-7·8	-10·5	*-11·1*	*-11·1*	-8·8	-6·7	-5·0	-2·6	-2·0	-5·0	-7·4	-9·9	-8·1	-3·3	+3·9	+11·8	+16·9	*+17·7*	+16·6	+14·4	+11·3	+7·6	+2·0	-2·9
Oct.	*-31·0*	-18·4	-17·0	-17·5	-17·9	-20·3	-17·6	-11·5	-4·0	-2·6	-2·8	-0·1	+5·1	+15·1	+22·8	+28·0	*+30·3*	+27·3	+20·6	+16·2	+9·8	+4·9	-0·9	-18·5
Nov.	-9·4	-10·0	-14·1	*-14·6*	-13·8	-11·8	-10·4	-8·1	-3·9	-3·8	-5·2	-3·6	-0·4	+3·9	+8·9	+15·5	*+18·1*	+14·5	+16·8	+17·9	+12·4	+4·5	+0·7	-4·1
Dec.	-5·3	-8·2	-8·6	-8·5	-10·2	*-10·4*	-9·8	-8·5	-5·8	-4·5	-5·0	-4·0	-3·1	-1·6	+3·0	+8·3	+13·8	+16·4	+16·3	*+16·8*	+12·8	+6·5	+1·3	-1·7
Year	-7·9	-9·3	-10·1	-9·6	-9·8	-8·9	-7·1	-5·3	-4·1	-6·2	-8·3	*-10·2*	-8·2	-2·3	+4·8	+12·3	+17·6	*+19·2*	+18·5	+16·5	+12·3	+6·7	+2·6	-3·0
Winter	-6·1	-7·6	-9·2	-9·2	*-9·8*	-9·6	-8·8	-7·2	-4·9	-4·9	-5·7	-5·2	-3·5	-0·6	+4·7	+10·9	+14·1	+14·7	+14·8	*+15·1*	+11·6	+5·9	+2·1	-1·7
Equinox	*-12·8*	-12·2	-11·1	-10·8	-12·0	-11·9	-9·2	-4·8	-2·3	-4·4	-6·7	-8·4	-6·5	+0·3	+8·1	+15·1	+20·9	*+21·6*	+18·9	+14·7	+10·9	+6·2	+2·0	-5·6
Summer	-4·7	-8·1	-10·1	-8·9	-7·5	-5·1	-3·3	-3·9	-5·0	-9·3	-13·4	*-17·1*	-14·5	-6·6	+1·7	+10·9	+17·9	+21·4	*+21·7*	+19·8	+14·3	+8·1	+3·6	-1·7

ALL DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cycle change)

142 ESKDALEMUIR

DECLINATION (measured positive towards the west)

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
Jan.	-2·21	-2·08	-1·48	-1·23	-0·62	-0·71	-0·97	-1·08	-1·48	-1·38	-0·03	+1·90	+3·26	+4·19	*+4·47*	+3·56	+2·98	+2·21	+1·33	-0·24	-1·93	-2·77	-2·84	*-2·85*
Feb.	-2·12	-2·38	-1·80	-1·19	-0·83	-1·29	-1·26	-1·43	-2·18	-2·04	-0·42	+1·81	+3·96	+5·26	*+5·30*	+4·24	+2·61	+2·10	+1·36	+0·44	-1·20	-2·16	*-3·42*	-3·36
Mar.	-2·61	-2·41	-3·06	-2·01	-1·50	-1·19	-0·98	-2·83	*-3·46*	-3·12	-1·20	+2·56	+6·00	*+7·29*	+6·97	+5·51	+3·01	+1·06	+0·13	-0·38	-1·74	-1·88	-2·33	-1·83
Apr.	-1·50	-2·49	-2·12	-2·08	-1·90	-2·48	-4·33	-5·83	*-6·25*	-4·96	-1·96	+2·22	+6·15	*+7·98*	+7·31	+5·59	+3·78	+2·01	+0·89	+0·28	+0·19	+0·47	-0·19	-0·78
May	-0·82	-1·56	-1·69	-2·33	-2·08	-4·18	-5·37	-5·88	*-6·26*	-4·41	-1·77	+2·16	+5·46	+6·96	*+7·00*	+5·61	+3·84	+2·48	+1·13	+0·65	+0·42	+0·92	+0·22	-0·50
June	-0·68	-1·64	-2·23	-2·79	-4·35	-6·05	-7·32	*-7·89*	-6·86	-4·68	-0·71	+3·40	+6·71	+7·94	*+8·02*	+6·64	+4·63	+3·05	+1·86	+1·38	+1·00	+0·65	-0·08	0·00
July	-0·86	-2·37	-2·77	-3·27	-4·06	-5·92	*-6·99*	-6·96	-6·60	-3·87	-0·88	+3·16	+6·33	*+7·58*	+7·29	+5·83	+4·26	+3·21	+1·93	+1·49	+1·05	+1·30	+0·92	+0·20
Aug.	-2·40	-2·77	-2·64	-3·06	-2·89	-4·00	-4·65	-4·32	*-5·19*	-3·07	+0·34	+4·28	+7·24	*+7·93*	+7·44	+5·76	+3·39	+1·82	+1·10	-0·03	+0·25	-0·68	-1·75	-2·10
Sept.	-3·24	-2·50	-2·51	-3·73	-3·18	-2·13	-2·69	-3·70	*-3·88*	-2·33	+0·03	+3·55	+6·32	*+7·37*	+7·15	+5·32	+3·04	+1·74	+0·84	+0·54	-0·23	-1·43	-1·60	-2·75
Oct.	-3·73	-3·16	-2·70	-2·16	-1·10	+0·59	+1·00	-0·60	-2·33	-1·40	+0·97	+4·05	+6·18	*+7·03*	+6·04	+4·48	+1·35	+0·82	-0·42	-1·33	-2·56	-3·56	*-4·01*	-3·45
Nov.	-3·39	-2·66	-1·96	-0·76	-0·73	-0·04	-0·10	-0·35	-1·42	-1·16	+0·54	+2·65	+4·44	+4·76	*+4·88*	+3·58	+2·27	+1·83	+1·28	-0·63	-2·66	-2·94	-3·43	*-4·00*
Dec.	-2·28	-1·61	-0·84	-0·46	-0·52	-0·60	-0·29	-0·37	-0·92	-1·02	+0·07	+1·56	+2·88	+3·63	*+3·81*	+3·46	+3·00	+1·81	+1·49	-0·62	-2·69	-2·95	-2·98	*-3·56*
Year	-2·15	-2·30	-2·15	-2·09	-1·97	-2·33	-2·83	-3·44	*-3·90*	-2·79	-0·42	+2·77	+5·41	*+6·49*	+6·31	+4·97	+3·14	+2·01	+1·08	+0·13	-0·84	-1·25	-1·79	-2·08
Winter	-2·50	-2·18	-1·52	-0·91	-0·67	-0·66	-0·65	-0·81	-1·50	-1·40	+0·04	+1·98	+3·63	+4·46	*+4·61*	+3·71	+2·71	+1·99	+1·37	-0·28	-2·12	-2·71	-3·17	*-3·44*
Equinox	-2·77	-2·64	-2·60	-2·49	-1·92	-1·30	-1·75	-3·24	*-3·98*	-2·95	-0·54	+3·09	+6·16	*+7·42*	+6·87	+5·23	+2·79	+1·41	+0·36	-0·22	-1·09	-1·60	-2·03	-2·20
Summer	-1·19	-2·08	-2·33	-2·86	-3·35	-5·04	-6·08	*-6·26*	-6·25	-4·01	-0·75	+3·25	+6·43	*+7·60*	+7·44	+5·96	+4·03	+2·64	+1·50	+0·87	+0·68	+0·55	-0·17	-0·60

INCLINATION

	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
Jan.	-0·24	-0·26	-0·28	-0·45	-0·69	*-0·97*	*-0·97*	-0·75	-0·40	+0·21	+0·49	+0·69	*+0·80*	+0·62	+0·59	+0·33	+0·33	+0·30	+0·35	+0·45	+0·23	-0·11	-0·07	-0·19
Feb.	-0·52	-0·57	-0·63	-0·57	-0·71	-1·04	*-1·19*	-0·91	-0·28	+0·51	+1·04	+1·25	*+1·32*	+1·10	+0·87	+0·73	+0·57	+0·34	-0·13	-0·21	-0·16	-0·21	-0·27	-0·30
Mar.	-0·77	-0·70	-0·41	-0·59	*-1·04*	-0·82	-0·56	-0·39	+0·32	+1·17	+1·86	*+1·98*	+1·49	+0·86	+0·53	+0·35	+0·26	-0·01	-0·43	-0·51	-0·71	-0·53	-0·66	-0·70
Apr.	-0·90	-0·68	-0·53	-0·69	-0·71	-0·72	-0·63	+0·06	+0·90	+1·83	*+2·55*	+2·38	+1·98	+1·30	+0·80	0·00	-0·56	-0·79	-0·81	-0·98	-0·92	-0·87	-0·93	*-1·07*
May	-0·50	-0·51	-0·51	-0·74	-0·28	-0·34	+0·49	+1·05	+1·81	+2·33	*+2·72*	+2·63	+1·89	+1·27	+0·40	-0·27	-1·00	-2·15	*-2·37*	-1·81	-1·39	-1·09	-0·94	-0·69
June	-0·43	-0·44	-0·41	-0·52	-0·30	+0·04	+0·55	+1·09	+1·80	+2·39	*+2·63*	+2·19	+1·37	+0·98	-0·04	-0·86	-1·25	-1·48	-1·69	*-1·77*	-1·57	-0·99	-0·71	-0·56
July	-0·41	-0·35	-0·39	-0·46	-0·51	-0·30	+0·41	+0·94	+1·66	+2·09	*+2·24*	+1·97	+1·49	+1·01	+0·31	-0·43	-0·69	-1·35	-1·60	*-1·67*	-1·39	-1·07	-0·89	-0·59
Aug.	-0·43	-0·57	-0·61	-0·65	-0·80	-0·31	+0·50	+1·41	+1·92	+2·29	*+2·33*	+1·58	+1·19	+0·25	+0·07	-0·27	-0·45	-0·98	-1·50	*-1·55*	-1·35	-0·73	-0·70	-0·67
Sept.	-0·60	-0·79	*-0·98*	-0·86	-0·77	-0·67	-0·45	+0·03	+0·94	+1·65	*+1·93*	+1·91	+1·52	+0·97	+0·44	+0·38	-0·06	-0·35	-0·69	-0·73	-0·68	-0·64	-0·82	-0·67
Oct.	-0·07	-0·46	-0·87	-1·11	-1·09	*-1·42*	-1·20	-0·53	+0·42	+1·33	+1·93	*+2·25*	+1·88	+1·17	+0·79	+0·36	+0·04	-0·09	-0·39	-0·47	-0·48	-0·39	-1·30	-0·28
Nov.	-0·41	-0·33	-0·56	-0·71	-0·94	*-0·95*	-0·84	-0·63	-0·02	+0·73	+1·09	*+1·28*	+1·21	+0·85	+0·30	+0·27	+0·17	-0·23	+0·03	+0·18	+0·02	-0·19	-0·17	-0·14
Dec.	-0·17	-0·35	-0·43	-0·55	-0·90	-0·98	*-1·07*	-0·95	-0·44	+0·36	+0·63	*+0·77*	+0·62	+0·36	+0·27	+0·35	+0·24	+0·33	+0·46	+0·55	+0·35	+0·43	+0·15	-0·04
Year	-0·46	-0·50	-0·55	-0·66	*-0·73*	-0·71	-0·41	+0·03	+0·72	+1·41	*+1·80*	+1·75	+1·40	+0·89	+0·44	+0·08	-0·20	-0·54	*-0·73*	-0·71	-0·67	-0·53	-0·61	-0·49
Winter	-0·34	-0·38	-0·48	-0·57	-0·82	-0·99	*-1·02*	-0·81	-0·28	+0·45	+0·82	*+1·00*	+0·99	+0·73	+0·51	+0·43	+0·33	+0·18	+0·17	+0·25	+0·11	-0·02	-0·09	-0·17
Equinox	-0·59	-0·66	-0·70	-0·81	-0·90	-0·91	-0·71	-0·21	+0·64	+1·49	+2·06	*+2·13*	+1·72	+1·08	+0·64	+0·27	-0·08	-0·31	-0·58	-0·67	-0·70	-0·61	*-0·93*	-0 68
Summer	-0·45	-0·47	-0·48	-0·59	-0·48	-0·23	+0·49	+1·12	+1·80	+2·28	*+2·48*	+2·09	+1·49	+0·88	+0·19	-0·46	-0·85	-1·49	*-1·79*	-1·70	-1·42	-0·97	-0·81	-0·63

HORIZONTAL FORCE

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	+2·3	+1·9	+1·9	+4·4	+7·3	+11·0	*+11·4*	+8·8	+4·1	-5·3	-9·6	-12·4	*-13·7*	-10·5	-7·8	-1·6	-1·2	+0·5	+0·6	-1·1	+0·6	+3·7	+2·0	+2·7
Feb.	+5·5	+6·0	+6·4	+5·8	+8·0	+12·9	*+15·3*	+11·4	+2·4	-9·4	-17·8	-21·2	*-21·7*	-16·7	-11·3	-6·9	-3·1	+0·2	+5·8	+7·0	+6·1	+5·7	+5·4	+4·2
Mar.	+8·6	+6·7	+2·6	+5·5	+10·6	+7·0	+3·9	+3·5	-6·0	-19·1	-30·2	*-32·8*	-25·3	-13·4	-5·8	+0·1	+4·8	+8·9	+14·1	+12·5	*+14·8*	+9·5	+10·2	+9·3
Apr.	+11·7	+6·4	+5·3	+8·2	+7·6	+8·4	+8·5	-0·5	-13·2	-29·1	*-41·3*	-40·6	-34·7	-22·5	-12·0	+2·2	+13·0	+18·2	+18·5	*+19·9*	+17·7	+15·8	+16·0	+16·5
May	+4·7	+3·0	+1·0	+5·3	+0·1	+1·5	-9·0	-16·7	-28·3	-38·1	*-45·0*	-44·9	-32·9	-20·6	-4·4	+8·8	+22·4	+41·1	*+45·2*	+35·9	+27·0	+19·9	+15·5	+8·5
June	+6·1	+5·3	+4·2	+6·0	+3·6	-0·3	-7·8	-15·8	-27·5	-38·6	*-44·5*	-39·9	-27·6	-19·6	-1·9	+13·5	+22·6	+28·3	+31·9	*+32·7*	+28·5	+18·5	+13·0	+9·3
July	+5·4	+4·0	+3·9	+5·6	+6·8	+4·4	-6·0	-14·6	-26·4	-34·7	*-38·7*	-35·9	-28·1	-18·2	-5·6	+8·2	+14·7	+25·8	+30·1	*+30·4*	+25·5	+19·1	+14·9	+9·4
Aug.	+3·2	+3·6	+4·4	+5·1	+6·6	+0·4	-11·2	-25·2	-32·0	-37·3	*-38·6*	-28·5	-21·1	-3·4	+3·2	+12·7	+17·0	+24·8	*+31·0*	+30·9	+24·6	+12·1	+10·0	+7·7
Sept.	+6·1	+7·9	+10·5	+8·7	+8·2	+7·5	+4·8	-1·4	-14·7	-26·4	-31·4	*-32·0*	-25·5	-15·6	-5·1	-1·3	+7·1	+11·7	*+16·4*	+16·2	+14·2	+12·3	+12·9	+8·9
Oct.	-10·4	0·0	+6·6	+10·0	+9·6	+13·6	+11·4	+3·7	-7·6	-20·7	-29·6	*-33·4*	-26·0	-12·0	-3·3	+5·0	+10·6	+11·4	+13·4	+13·0	+10·8	+7·6	*+19·0*	-2·7
Nov.	+2·7	+1·2	+3·1	+5·2	+8·9	*+9·8*	+8·7	+6·3	-1·2	-12·3	-18·1	*-20·3*	-18·1	-11·1	-1·2	+1·7	+4·1	+8·7	+5·8	+3·9	+4·3	+4·5	+2·8	+0·6
Dec.	+0·6	+2·1	+3·2	+5·1	+9·6	+10·7	*+12·3*	+11·0	+4·4	-7·0	-11·2	*-12·9*	-10·4	-6·0	-2·9	-2·2	+1·5	+1·2	-0·8	-2·0	-0·5	-4·0	-1·8	0·0
Year	+3·9	+4·0	+4·4	+6·2	+7·2	+7·2	+3·5	-2·4	-12·2	-23·2	*-29·7*	*-29·7*	-23·8	-14·1	-4·8	+3·3	+9·5	+15·1	*+17·7*	+16·6	+14·5	+10·4	+10·0	+6·2
Winter	+2·8	+2·8	+3·7	+5·1	+8·5	+11·1	*+11·9*	+9·4	+2·4	-8·5	-14·2	*-16·7*	-16·0	-11·1	-5·8	-2·3	+0·3	+2·7	+2·9	+1·9	+2·6	+2·5	+2·1	+1·9
Equinox	+4·0	+5·3	+6·3	+8·1	+9·0	+9·1	+7·1	+1·3	-10·4	-23·8	-33·1	*-34·7*	-27·9	-15·9	-6·5	+1·5	+8·9	+12·5	*+15·6*	+15·4	+14·4	+11·3	+14·5	+8·0
Summer	+4·9	+4·0	+3·4	+5·5	+4·3	+1·5	-8·5	-18·1	-28·5	-37·2	*-41·7*	-37·3	-27·4	-15·5	-2·2	+10·8	+19·2	+30·0	*+34·5*	+32·5	+26·4	+17·4	+13·3	+8·7

DIURNAL INEQUALITIES OF THE GEOGRAPHICAL COMPONENTS OF MAGNETIC FORCE

INTERNATIONAL QUIET DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

143 ESKDALEMUIR

NORTH COMPONENT

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	−0·7	+0·4	+1·1	+2·3	+3·7	+7·0	+8·4	+6·4	+3·1	−8·3	−13·9	*−17·1*	−16·7	−12·2	−7·4	−5·1	−3·8	+1·5	+6·0	+8·0	*+10·3*	+9·6	+9·5	+7·8
Feb.	+10·6	+5·4	+2·1	+4·5	+5·2	+7·7	+8·8	+6·7	+0·7	−9·4	−17·5	−23·0	*−25·3*	−20·0	−14·0	−7·1	−0·2	+4·1	+6·6	+9·5	+11·4	+11·3	+10·4	*+11·5*
Mar.	+7·4	+6·1	+3·3	+5·5	+7·4	+9·7	+10·5	+7·1	−0·3	−11·8	−22·6	*−29·3*	−26·7	−25·5	−15·1	−5·3	−1·0	+5·0	+11·6	+12·7	*+15·3*	+13·3	+12·1	+10·8
Apr.	+12·0	+8·9	+7·1	+8·3	+8·5	+12·4	+14·2	+10·0	−2·6	−19·5	−32·6	*−40·3*	−39·8	−34·3	−22·2	−8·7	+2·0	+10·0	+15·2	*+20·8*	+17·2	+16·7	+16·0	+20·5
May	+4·5	+3·4	+2·6	+4·9	+6·6	+8·3	+3·9	−4·5	−17·9	−30·2	−37·8	*−38·7*	−30·8	−23·0	−8·2	+4·4	+15·1	+24·2	*+30·1*	+23·5	+17·7	+17·2	+14·0	+10·8
June	+6·7	+4·7	+4·6	+6·8	+8·4	+8·3	+3·4	−5·9	−18·4	−27·1	−34·4	*−36·4*	−28·9	−21·9	−5·1	+2·3	+13·5	+20·7	+18·8	*+21·4*	+19·3	+15·1	+13·0	+11·3
July	+9·2	+11·1	+10·5	+8·3	+11·7	+12·3	+3·1	−7·6	−20·5	−42·3	*−47·0*	−44·4	−36·5	−22·8	−6·6	+7·2	+9·4	+20·1	+23·3	*+24·5*	+22·8	+20·0	+18·5	+15·8
Aug.	+4·6	+5·6	+6·2	+7·4	+5·5	+3·0	−1·0	−6·4	−12·6	−24·2	*−29·5*	−29·4	−23·4	−17·9	−9·6	−0·6	+10·9	+14·2	*+19·2*	+18·0	+17·2	+15·3	+15·0	+12·4
Sept.	+10·2	+8·5	+8·9	+9·1	+7·9	+6·7	+5·1	+0·5	−10·5	−17·3	−25·4	*−28·2*	−27·5	−25·2	−17·7	−8·6	−0·7	+8·5	+13·1	+15·1	+16·5	+17·3	+14·5	*+19·3*
Oct.	+3·1	+4·0	+6·7	+7·9	+7·2	+9·4	+9·5	+6·5	−1·1	−16·0	−26·1	*−32·5*	−30·9	−25·1	−14·6	−4·8	+4·9	+9·1	+9·5	+12·6	+13·9	+14·3	+15·1	*+17·3*
Nov.	−0·2	+1·8	+0·6	+0·9	+1·9	+5·6	*+10·2*	+9·0	+3·8	−5·7	−12·5	−18·0	*−19·0*	−16·4	−12·7	−5·1	+2·0	+5·7	+7·5	+9·4	+9·1	+8·8	+7·5	+6·1
Dec.	−0·5	−0·3	−1·5	+1·5	+4·6	+3·8	+4·8	+5·1	+1·5	−7·6	−10·1	−13·6	*−13·7*	−10·7	−7·4	−1·9	+3·7	+6·2	+6·2	+5·3	+5·4	+6·0	+5·4	*+8·0*
Year	+5·6	+5·0	+4·3	+5·6	+6·6	+7·8	+6·8	+2·3	−6·2	−18·3	−25·8	*−29·2*	−26·6	−21·2	−11·8	−2·8	+4·6	+10·7	+14·0	*+15·0*	+14·7	+13·7	+12·6	+12·6
Winter	+2·3	+1·8	+0·6	+2·3	+3·9	+6·0	+8·3	+6·7	+2·3	−7·8	−13·5	−17·9	*−18·6*	−14·9	−10·4	−4·8	+0·4	+4·4	+6·5	+8·0	*+9·0*	*+9·0*	+8·2	+8·3
Equinox	+8·1	+6·9	+6·5	+7·7	+7·8	+9·5	+9·8	+6·0	−3·6	−16·1	−26·7	*−32·6*	−31·2	−27·6	−17·4	−6·9	+1·3	+8·1	+12·4	+15·3	+15·7	+15·4	+14·4	*+16·9*
Summer	+6·2	+6·2	+5·9	+6·9	+8·1	+8·0	+2·4	−6·1	−17·4	−30·9	−37·1	*−37·3*	−30·0	−21·5	−7·4	+3·4	+12·2	+19·8	*+22·8*	+21·8	+19·3	+16·9	+15·2	+12·6

WEST COMPONENT

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	−2·7	−3·5	−2·1	−3·1	−4·2	−5·5	−7·0	−8·2	*−10·7*	*−10·7*	−4·0	+3·7	+10·4	*+13·6*	+11·9	+9·4	+6·4	+3·9	+5·3	+3·6	+1·8	−1·4	−3·3	−3·8
Feb.	−4·8	−13·0	−10·1	−7·9	−5·2	−5·1	−6·1	−8·3	−12·0	*−14·6*	−7·1	+3·4	+11·2	+18·5	*+18·9*	+14·4	+7·8	+5·5	+4·4	+4·3	+3·2	+1·6	+1·0	−0·1
Mar.	−4·1	−5·6	−4·4	−4·7	−7·9	−7·3	−9·2	−18·3	*−26·3*	−25·5	−18·1	−3·4	+17·9	+25·1	*+28·6*	+25·4	+17·6	+11·3	+9·0	+5·0	+4·4	+0·9	−5·8	−4·5
Apr.	+2·5	+1·1	−0·6	−1·1	−4·0	−10·1	−19·5	−30·7	*−37·2*	−35·3	−25·2	−5·2	+17·5	*+29·5*	+28·7	+23·5	+15·5	+9·2	+6·9	+7·5	+6·7	+7·7	+6·9	+5·8
May	+4·1	+1·7	−2·1	−8·8	−15·2	−23·5	−32·9	*−38·2*	−34·7	−29·3	−17·0	+0·6	+19·3	+29·3	*+30·6*	+26·5	+20·9	+16·7	+13·2	+11·2	+11·8	+9·7	+4·7	+1·6
June	−0·2	−4·3	−7·9	−12·4	−16·0	−22·0	−29·3	−32·8	*−33·4*	−28·0	−14·7	+4·5	+20·1	+25·9	*+27·8*	+22·4	+20·1	+17·5	+13·1	+14·3	+11·0	+9·4	+8·5	+6·1
July	+0·5	−4·1	−9·3	−8·1	−17·5	−32·9	−39·0	*−42·8*	−42·2	−32·0	−10·2	+14·6	+33·3	*+37·7*	+33·0	+25·1	+13·5	+11·6	+10·7	+12·6	+13·5	+12·6	+10·0	+9·6
Aug.	−6·2	−4·9	−6·2	−8·2	−13·5	−21·7	−27·7	−31·3	*−31·7*	−21·8	−7·7	+10·6	+25·2	*+31·6*	+29·5	+25·3	+19·3	+11·8	+8·9	+7·9	+7·5	+5·4	−0·5	−1·6
Sept.	−2·7	−5·0	−5·3	−6·9	−8·6	−9·3	−10·6	−16·7	*−22·3*	−18·3	−7·4	+6·6	+17·5	*+22·3*	+22·0	+17·4	+10·3	+7·9	+5·7	+6·2	+5·4	−1·3	−3·0	−3·9
Oct.	−6·8	−3·0	−1·7	−4·9	−2·6	−4·9	−9·1	−16·0	*−21·2*	−20·9	−13·1	+2·5	+14·0	+19·7	*+20·9*	+15·5	+10·5	+7·1	+4·8	+6·8	+5·9	+3·2	−1·9	−4·9
Nov.	−10·0	−8·1	−4·4	−2·3	−2·8	−4·6	−5·6	−6·2	−11·7	*−11·8*	−5·0	+4·4	+11·8	*+14·4*	+13·6	+12·6	+11·7	+8·7	+4·3	+0·6	−1·8	−0·9	−2·4	−4·4
Dec.	−7·5	−3·7	−0·7	+0·2	−3·3	−3·2	−4·3	−2·3	−5·2	−7·1	−1·6	+4·9	+8·0	*+10·8*	+10·1	+9·9	+7·8	+5·9	+3·7	+0·7	−3·3	*−8·8*	−6·1	−4·5
Year	−3·2	−4·4	−4·5	−5·7	−8·4	−12·5	−16·7	−21·0	*−24·1*	−21·3	−10·9	+3·9	+17·2	*+23·2*	+23·0	+18·9	+13·5	+9·7	+7·5	+6·7	+5·5	+3·2	+0·7	−0·3
Winter	−6·2	−7·1	−4·3	−3·3	−3·9	−4·6	−5·7	−6·3	−9·9	*−11·1*	−4·4	+4·1	+10·4	*+14·3*	+13·6	+11·5	+8·4	+6·0	+4·4	+2·3	0·0	−2·3	−2·7	−3·2
Equinox	−2·8	−3·1	−3·0	−4·4	−5·8	−7·9	−12·1	−20·5	*−26·8*	−25·1	−16·0	+0·1	+16·7	+24·1	*+25·0*	+20·5	+13·4	+8·8	+6·6	+6·4	+5·6	+2·6	−0·9	−1·9
Summer	−0·5	−2·9	−6·4	−9·4	−15·6	−25·0	−32·2	*−36·3*	−35·5	−27·8	−12·4	+7·5	+24·5	*+31·1*	+30·3	+24·9	+18·4	+14·4	+11·5	+11·5	+11·0	+9·3	+5·7	+3·9

VERTICAL COMPONENT

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	+2·3	+1·8	+0·7	+0·1	−0·3	−1·4	−2·1	−2·1	−1·5	−2·6	*−3·3*	−3·1	−2·1	−2·0	+0·7	+1·7	*+2·9*	+2·0	+1·7	+2·1	+1·5	+0·6	+1·7	+0·7
Feb.	−2·8	*−4·7*	−2·0	−2·0	−2·0	−1·3	−0·6	−0·2	+1·0	+0·5	−1·8	−4·6	−3·4	+0·1	+2·6	+4·0	*+4·4*	+3·5	+2·4	+2·4	+1·8	+1·1	+0·8	+0·8
Mar.	+1·3	−0·6	−0·5	−1·2	+0·2	+0·7	+2·0	+4·8	*+4·9*	−0·8	−5·5	−11·4	*−13·1*	−8·8	−3·7	+1·2	+3·4	+3·3	+3·6	+4·4	+4·5	+3·8	+4·3	+3·2
Apr.	+1·9	+3·7	+5·3	+4·1	+3·7	+4·9	*+7·1*	+6·9	+2·7	−4·7	−9·1	−16·7	*−17·7*	−13·1	−7·5	−3·9	+2·5	+4·5	+6·3	+4·9	+5·1	+3·3	+3·3	+2·5
May	−3·5	−2·5	−0·7	+2·7	+6·1	+8·4	+7·5	+3·9	+0·7	−6·9	−11·1	−18·9	*−19·9*	−14·3	−6·3	−0·9	+4·3	+9·8	+11·5	*+12·5*	+8·5	+4·9	+3·1	+1·1
June	+3·5	+3·7	+4·5	+6·5	+6·7	+7·8	+6·7	+3·7	−1·5	−8·1	−13·9	*−21·3*	−20·5	−12·9	−8·7	−3·7	+1·3	+7·2	*+8·9*	+8·7	+7·9	+5·9	+4·3	+3·3
July	+3·9	+1·1	−1·5	−0·1	+1·5	+4·3	+7·1	+4·1	−1·7	−9·1	−16·3	*−18·7*	−17·9	−8·9	−1·3	+1·7	+6·5	+7·3	*+8·5*	+8·1	+7·3	+5·5	+4·5	+4·1
Aug.	+3·4	+2·0	+1·2	+1·6	+4·4	+6·3	+4·8	+3·0	+1·4	−5·4	−9·8	−15·6	*−17·6*	−14·6	−7·4	0·0	+2·4	+6·9	+7·4	+7·6	+5·2	+4·6	+4·8	+3·4
Sept.	−3·4	−0·3	+1·7	+2·6	+2·7	+2·9	+3·8	+3·9	+2·7	−3·8	−9·3	*−11·7*	−11·4	−8·5	−3·5	+3·6	*+6·5*	+5·9	+5·2	+4·3	+3·5	+3·0	+1·7	−2·1
Oct.	−1·1	−0·1	−0·7	−2·5	−3·7	−2·6	−0·3	+2·3	+2·9	+0·7	−2·7	*−5·7*	−5·3	−4·1	−1·1	+1·5	+3·1	+5·2	*+5·7*	+3·1	+2·1	+1·5	+1·5	+0·3
Nov.	*+6·2*	+3·4	+1·4	−0·4	−1·0	−1·7	−2·6	−2·0	−0·4	−2·6	−4·8	*−5·2*	−4·8	−2·4	+0·4	+2·2	+2·4	+2·1	+1·6	+2·4	+2·4	+1·0	+1·2	+1·2
Dec.	+1·8	+0·1	−0·6	−2·3	−3·3	−3·2	−3·7	*−3·9*	−2·4	−2·5	−3·0	−2·1	+0·8	+2·1	+3·4	*+4·1*	+2·9	+2·4	+1·9	+2·5	+2·8	+2·9	+1·2	−1·9
Year	+1·1	+0·6	+0·7	+0·8	+1·3	+2·1	+2·5	+2·0	+0·7	−3·8	−7·5	*−11·3*	−11·1	−7·3	−2·7	+1·0	+3·5	+5·0	*+5·4*	+5·3	+4·4	+3·2	+2·7	+1·4
Winter	+1·9	+0·1	−0·1	−1·1	−1·7	−1·9	−2·3	−2·1	−0·8	−1·8	−3·2	*−3·7*	−2·4	−0·5	+1·8	+3·0	*+3·1*	+2·5	+1·9	+2·3	+2·1	+1·4	+1·2	+0·2
Equinox	−0·3	+0·7	+1·5	+0·7	+0·7	+1·5	+3·1	+4·5	+3·3	−2·1	−6·7	−11·4	*−11·9*	−8·6	−3·9	+0·6	+3·9	+4·7	*+5·2*	+4·2	+3·8	+2·9	+2·7	+1·0
Summer	+1·8	+1·1	+0·9	+2·7	+4·7	+6·7	+6·5	+3·7	−0·3	−7·4	−12·8	−18·6	*−19·0*	−12·7	−5·9	−0·7	+3·6	+7·8	+9·1	+9·2	+7·2	+5·2	+4·2	+3·0

INTERNATIONAL QUIET DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

144 ESKDALEMUIR

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
DECLINATION (measured positive towards the west)																								
Jan.	−0·51	−0·73	−0·47	−0·73	−1·01	−1·41	−1·79	−1·95	*−2·31*	−1·83	−0·21	+1·49	+2·83	*+3·29*	+2·73	+2·13	+1·47	+0·73	+0·83	+0·39	−0·07	−0·69	−1·07	−1·11
Feb.	−1·44	*−2·87*	−2·14	−1·79	−1·27	−1·36	−1·61	−1·97	−2·46	−2·57	−0·70	+1·67	+3·36	*+4·61*	+4·44	+3·23	+1·59	+0·94	+0·61	+0·47	+0·16	−0·15	−0·24	−0·51
Mar.	−1·15	−1·39	−1·03	−1·19	−1·91	−1·90	−2·31	−4·03	*−5·33*	−4·69	−2·73	+0·55	+4·77	+6·19	*+6·45*	+5·39	+3·63	+2·08	+1·33	+0·47	+0·25	−0·39	−1·69	−1·37
Apr.	0·00	−0·16	−0·42	−0·58	−1·18	−2·58	−4·56	−6·68	*−7·46*	−6·36	−3·74	+0·66	+5·26	*+7·46*	+6·78	+5·16	+3·06	+1·44	+0·76	+0·64	+0·62	+0·86	+0·72	+0·30
May	+0·64	+0·20	−0·53	−2·00	−3·38	−5·14	−6·86	*−7·58*	−6·29	−4·68	−1·84	+1·76	+5·24	*+6·94*	+6·57	+5·20	+3·60	+2·36	+1·40	+1·28	+1·65	+1·24	+0·36	−0·14
June	−0·32	−1·07	−1·80	−2·82	−3·60	−4·83	−6·10	*−6·42*	−6·00	−4·53	−1·52	+2·46	+5·32	*+6·21*	+5·88	+4·46	+3·52	+2·67	+1·86	+2·00	+1·42	+1·27	+1·18	+0·76
July	−0·30	−1·31	−2·34	−2·00	−4·06	−7·21	−8·06	*−8·38*	−7·72	−4·71	−0·08	+4·86	+8·32	*+8·63*	+7·00	+4·80	+2·34	+1·51	+1·18	+1·52	+1·78	+1·72	+1·24	+1·28
Aug.	−1·46	−1·23	−1·52	−1·98	−2·98	−4·53	−5·60	*−6·10*	−5·92	−3·41	−0·32	+3·40	+6·12	*+7·19*	+6·42	+5·18	+3·46	+1·79	+1·00	+0·84	+0·80	+0·45	−0·74	−0·86
Sept.	−0·99	−1·38	−1·46	−1·79	−2·08	−2·18	−2·37	−3·42	*−4·10*	−2·99	−0·42	+2·54	+4·73	*+5·60*	+5·22	+3·91	+2·12	+1·24	+0·61	+0·62	+0·40	−0·99	−1·22	−1·60
Oct.	−1·52	−0·78	−0·62	−1·32	−0·84	−1·39	−2·26	−3·54	*−4·26*	−3·58	−1·56	+1·88	+4·16	*+5·08*	+4·88	+3·36	+1·92	+1·05	+0·58	+0·86	+0·60	+0·04	−1·02	−1·72
Nov.	−2·02	−1·73	−0·92	−0·51	−0·65	−1·18	−1·57	−1·65	*−2·54*	−2·15	−0·48	+1·65	+3·20	*+3·63*	+3·30	+2·77	+2·29	+1·52	+0·55	−0·27	−0·74	−0·55	−0·80	−1·15
Dec.	−1·51	−0·75	−0·09	−0·03	−0·87	−0·82	−1·07	−0·69	−1·13	−1·13	+0·11	+1·57	+2·21	*+2·65*	+2·37	+2·09	+1·43	+0·94	+0·49	−0·09	−0·91	*−2·05*	−1·47	−1·25
Year	−0·88	−1·10	−1·11	−1·39	−1·99	−2·88	−3·68	−4·37	*−4·63*	−3·55	−1·12	+2·04	+4·63	*+5·62*	+5·17	+3·97	+2·54	+1·52	+0·93	+0·73	+0·50	+0·06	−0·40	−0·61
Winter	−1·37	−1·52	−0·91	−0·77	−0·95	−1·19	−1·51	−1·57	*−2·11*	−1·92	−0·32	+1·59	+2·90	*+3·55*	+3·21	+2·55	+1·69	+1·03	+0·62	+0·13	−0·39	−0·86	−0·89	−1·01
Equinox	−0·91	−0·93	−0·88	−1·22	−1·50	−2·01	−2·87	−4·42	*−5·29*	−4·41	−2·11	+1·41	+4·73	*+6·08*	+5·83	+4·45	+2·68	+1·45	+0·82	+0·65	+0·47	−0·12	−0·80	−1·10
Summer	−0·36	−0·85	−1·55	−2·20	−3·51	−5·43	−6·65	*−7·12*	−6·48	−4·33	−0·94	+3·12	+6·25	*+7·24*	+6·47	+4·91	+3·23	+2·08	+1·36	+1·41	+1·41	+1·17	+0·51	+0·26
INCLINATION																								
Jan.	+0·14	+0·07	−0·02	−0·11	−0·20	−0·42	−0·51	−0·36	−0·09	+0·63	+0·89	*+1·00*	+0·91	+0·56	+0·34	+0·24	+0·23	−0·11	−0·43	−0·53	*−0·66*	−0·60	−0·54	−0·44
Feb.	−0·70	−0·29	−0·05	−0·24	−0·32	−0·47	−0·51	−0·33	+0·15	+0·83	+1·21	+1·35	*+1·43*	+1·07	+0·73	+0·37	+0·01	−0·26	−0·44	−0·63	*−0·75*	−0·74	−0·68	−0·73
Mar.	−0·40	−0·34	−0·17	−0·33	−0·37	−0·52	−0·52	−0·10	+0·51	+1·11	+1·60	*+1·70*	+1·19	+1·12	+0·51	+0·03	−0·09	−0·40	−0·80	−0·79	*−0·96*	−0·80	−0·61	−0·57
Apr.	−0·78	−0·51	−0·33	−0·43	−0·41	−0·56	−0·49	−0·07	+0·75	+1·66	+2·27	*+2·32*	+1·94	+1·53	+0·88	+0·15	−0·28	−0·68	−0·94	−1·35	−1·10	−1·12	−1·07	*−1·37*
May	−0·44	−0·31	−0·16	−0·13	−0·07	−0·01	+0·39	+0·93	+1·68	+2·23	*+2·45*	+2·07	+1·27	+0·76	−0·04	−0·68	−1·18	−1·58	*−1·89*	−1·39	−1·12	−1·15	−0·91	−0·71
June	−0·35	−0·16	−0·08	−0·11	−0·16	−0·05	+0·35	+0·93	+1·64	+1·98	*+2·13*	+1·81	+1·12	+0·77	−0·26	−0·56	−1·13	*−1·43*	−1·20	−1·39	−1·23	−0·98	−0·87	−0·75
July	−0·52	−0·65	−0·60	−0·43	−0·49	−0·25	+0·51	+1·19	+1·89	*+3·01*	+2·84	+2·26	+1·51	+0·76	−0·05	−0·78	−0·65	−1·31	−1·47	*−1·59*	−1·51	−1·36	−1·24	−1·07
Aug.	−0·13	−0·25	−0·29	−0·34	−0·07	+0·26	+0·56	+0·92	+1·30	+1·76	*+1·81*	+1·41	+0·76	+0·39	+0·05	−0·31	−0·92	−0·93	*−1·20*	−1·11	−1·11	−0·97	−0·87	−0·71
Sept.	−0·72	−0·50	−0·47	−0·44	−0·34	−0·25	−0·09	+0·29	+1·07	+1·30	*+1·55*	+1·48	+1·29	+1·14	+0·78	+0·42	+0·07	−0·52	−0·81	−0·98	−1·07	−1·05	−0·87	*−1·27*
Oct.	−0·13	−0·22	−0·44	−0·51	−0·53	−0·62	−0·51	−0·15	+0·44	+1·36	+1·83	*+1·97*	+1·72	+1·28	+0·65	+0·14	−0·39	−0·57	−0·55	−0·85	−0·95	−0·95	−0·93	*−1·07*
Nov.	+0·30	+0·08	+0·05	−0·04	−0·11	−0·35	*−0·66*	−0·55	−0·10	+0·47	+0·78	*+1·00*	+0·97	+0·82	+0·66	+0·22	−0·23	−0·44	−0·51	−0·57	−0·51	−0·54	−0·43	−0·31
Dec.	+0·18	+0·08	+0·09	−0·16	−0·34	−0·29	−0·35	−0·40	−0·09	+0·54	+0·61	+0·78	*+0·81*	+0·61	+0·43	+0·09	−0·28	−0·43	−0·41	−0·29	−0·24	−0·20	−0·24	*−0·51*
Year	−0·30	−0·25	−0·21	−0·27	−0·29	−0·29	−0·15	+0·19	+0·76	+1·41	*+1·67*	+1·59	+1·24	+0·90	+0·39	−0·06	−0·41	−0·72	−0·89	*−0·95*	−0·94	−0·87	−0·78	−0·79
Winter	−0·02	−0·02	+0·02	−0·13	−0·24	−0·38	−0·51	−0·41	−0·03	+0·62	+0·87	*+1·03*	*+1·03*	+0·77	+0·54	+0·23	−0·07	−0·31	−0·45	−0·50	*−0·54*	−0·52	−0·47	−0·50
Equinox	−0·51	−0·39	−0·35	−0·43	−0·41	−0·48	−0·40	0·00	+0·69	+1·36	+1·82	*+1·87*	+1·53	+1·27	+0·71	+0·18	−0·17	−0·54	−0·78	−0·99	−1·02	−0·98	−0·87	*−1·07*
Summer	−0·36	−0·34	−0·28	−0·26	−0·20	−0·02	+0·45	+1·00	+1·63	+2·24	*+2·31*	+1·89	+1·17	+0·67	−0·08	−0·58	−0·97	−1·31	*−1·44*	−1·37	−1·24	−1·12	−0·97	−0·81
HORIZONTAL FORCE																								
Jan.	−1·2	−0·3	+0·6	+1·6	+2·8	+5·7	+6·8	+4·6	+0·8	−10·3	−14·4	*−16·0*	−14·2	−9·1	−4·8	−3·0	−2·4	+2·3	+7·0	+8·6	*+10·4*	+9·1	+8·6	+6·8
Feb.	+9·4	+2·6	0·0	+2·8	+4·0	+6·5	+7·4	+4·8	−1·8	−12·2	−18·6	−21·8	*−22·4*	−15·8	−9·8	−4·0	+1·4	+5·1	+7·4	+10·2	*+11·8*	+11·4	+10·4	+11·2
Mar.	+6·4	+4·8	+2·3	+4·4	+5·6	+8·0	+8·4	+3·2	−5·7	−16·8	−25·8	*−29·4*	−22·4	−19·8	−8·9	0·0	+2·6	+7·2	+13·2	+13·4	*+15·9*	+13·2	+10·6	+9·6
Apr.	+12·3	+8·9	+6·8	+7·9	+7·5	+10·1	+9·9	+3·5	−10·2	−26·3	−37·1	*−40·5*	−35·3	−27·5	−15·8	−3·7	+5·1	+11·7	+16·3	*+21·9*	+18·2	+17·9	+17·1	+21·3
May	+5·2	+3·7	+2·1	+3·0	+3·3	+3·3	−3·0	−12·3	−24·7	−35·6	*−40·5*	−37·7	−26·2	−16·5	−1·7	+9·8	+19·1	+27·1	*+32·2*	+25·3	+19·7	+18·8	+14·7	+10·9
June	+6·5	+3·7	+2·9	+4·1	+4·9	+3·6	−2·7	−12·5	−24·9	−32·3	*−36·7*	−34·7	−24·1	−16·1	+0·7	+6·9	+17·3	+23·8	+21·1	*+23·9*	+21·1	+16·7	+14·5	+12·3
July	+9·1	+10·0	+8·3	+6·4	+7·8	+5·3	−5·0	−16·2	−28·7	−48·0	*−48·1*	−40·4	−28·9	−14·6	+0·3	+12·2	+12·0	+22·1	+25·0	*+26·6*	+25·1	+22·2	+20·1	+17·4
Aug.	+3·2	+4·5	+4·8	+5·6	+2·6	−1·5	−6·6	−12·6	−18·8	−28·1	*−30·4*	−26·6	−17·8	−11·1	−3·4	+4·6	+14·6	+16·3	*+20·6*	+19·2	+18·4	+16·1	+14·6	+11·8
Sept.	+9·4	+7·3	+7·6	+7·5	+6·0	+4·7	+2·8	−2·9	−14·8	−20·7	*−26·4*	−26·3	−23·4	−20·1	−12·8	−4·9	+1·4	+9·9	+14·0	+16·1	+17·2	+16·7	+13·6	*+18·1*
Oct.	+1·6	+3·3	+6·2	+6·7	+6·5	+8·2	+7·5	+3·1	−5·4	−19·9	−28·2	*−31·3*	−27·4	−20·5	−10·0	−1·5	+6·9	+10·4	+10·3	+13·7	+14·8	+14·7	+14·4	*+15·9*
Nov.	−2·2	+0·1	−0·3	+0·4	+1·3	+4·5	+8·8	+7·5	+1·3	−8·0	−13·3	*−16·7*	−16·2	−13·1	−9·7	−2·4	+4·3	+7·3	+8·2	*+9·3*	+8·5	+8·4	+6·9	+5·1
Dec.	−2·0	−1·1	−1·6	+1·5	+3·8	+3·1	+3·8	+4·5	+0·4	−8·9	−10·2	*−12·3*	−11·8	−8·3	−5·2	+0·1	+5·2	*+7·3*	+6·8	+5·3	+4·6	+4·1	+4·0	+6·9
Year	+4·8	+4·0	+3·3	+4·3	+4·7	+5·1	+3·2	−2·1	−11·0	−22·3	−27·5	*−27·8*	−22·5	−16·0	−6·8	+1·2	+7·3	+12·5	+15·2	*+16·1*	+15·5	+14·1	+12·5	+12·3
Winter	+1·0	+0·3	−0·3	+1·6	+3·0	+4·9	+6·7	+5·3	+0·2	−9·9	−14·1	*−16·7*	−16·1	−11·6	−7·4	−2·3	+2·1	+5·5	+7·3	+8·3	*+8·8*	+8·3	+7·5	+7·5
Equinox	+7·4	+6·1	+5·7	+6·6	+6·4	+7·7	+7·1	+1·7	−9·0	−20·9	−29·4	*−31·9*	−27·1	−22·0	−11·9	−2·5	+4·0	+9·8	+13·5	+16·3	*+16·5*	+15·6	+13·9	+16·2
Summer	+6·0	+5·5	+4·5	+4·8	+4·7	+2·7	−4·3	−13·4	−24·3	−36·0	*−38·9*	−34·9	−24·3	−14·6	−1·0	+8·4	+15·7	+22·3	*+24·7*	+23·7	+21·1	+18·5	+16·0	+13·1

DIURNAL INEQUALITIES OF THE GEOGRAPHICAL COMPONENTS OF MAGNETIC FORCE

INTERNATIONAL DISTURBED DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

145 ESKDALEMUIR

NORTH COMPONENT

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	+7·3	+4·4	+4·7	+11·0	+19·8	+23·2	+15·8	+11·5	+9·7	+2·1	−4·8	−11·1	−19·1	−12·5	−15·1	+7·3	−1·8	−3·7	−11·8	−22·0	−7·4	−2·4	−6·5	+1·5
Feb.	+7·1	+16·0	+12·3	+11·4	+14·2	+25·2	+29·4	+17·6	+4·3	−14·3	−25·0	−26·8	−30·7	−28·1	−20·4	−17·6	−10·0	−4·9	+6·4	+4·8	+7·5	+8·8	+8·5	+4·2
Mar.	+25·6	+17·4	+5·0	+9·7	+22·4	−8·8	−25·7	−5·9	−28·1	−37·0	−47·3	−50·2	−32·6	+1·2	−0·8	+6·6	+30·0	+34·4	+36·0	+12·6	+14·8	+5·8	+12·4	+2·6
Apr.	+13·4	−0·6	+5·7	+20·7	+11·6	+7·0	+15·8	−3·6	−9·0	−29·0	−38·9	−37·0	−34·0	−27·6	−22·5	−5·4	+7·5	+22·0	+15·9	+21·5	+17·6	+14·1	+20·9	+13·9
May	+14·6	+10·8	−8·5	+23·1	+2·8	−1·9	−38·1	−28·7	−27·1	−32·2	−45·3	−55·0	−42·8	−27·9	−4·9	−9·1	+27·1	+48·4	+53·7	+51·4	+38·8	+25·0	+24·5	+1·5
June	+2·5	+4·3	+7·3	+10·0	+6·7	+3·4	−8·4	−8·5	−19·4	−38·0	−56·2	−44·9	−30·3	−31·5	−8·1	+18·5	+19·3	+32·1	+38·5	+39·7	+31·6	+15·3	+8·6	+7·3
July	+9·1	+6·8	+6·7	+10·7	+11·9	+15·8	+1·2	−11·1	−24·2	−29·2	−38·9	−40·0	−35·7	−24·0	−15·3	−6·5	+9·9	+15·6	+25·7	+36·8	+32·1	+19·7	+14·5	+8·2
Aug.	+2·2	+4·3	+4·1	+8·1	+9·7	−7·2	−40·3	−77·4	−71·6	−54·5	−47·6	−39·7	−21·3	+28·7	+12·5	+38·3	+38·0	+58·3	+69·1	+62·3	+31·0	−3·0	+3·4	−7·6
Sept.	+21·2	+13·6	+24·3	+26·3	+19·3	+17·8	+14·1	+9·0	−10·8	−26·8	−39·6	−45·3	−43·3	−28·6	−12·5	−4·2	+7·3	+9·0	+14·0	+12·7	+12·2	+5·3	+6·5	−1·8
Oct.	−87·3	−16·3	+13·4	+18·7	−6·7	+9·7	+9·1	−13·7	−24·9	−32·1	−28·3	−41·2	−31·3	−3·4	+9·1	+29·3	+24·2	+35·8	+35·6	+28·7	+26·4	+18·3	+33·1	−6·2
Nov.	+14·0	+6·6	+9·1	+6·7	+16·4	+10·4	+1·8	+1·2	−6·0	−12·1	−21·3	−24·5	−18·5	−11·2	+7·8	+8·7	+17·5	+15·0	+1·0	−3·5	−3·4	−0·2	−6·9	−8·4
Dec.	+10·4	+9·4	+10·8	+13·0	+19·0	+23·5	+22·9	+19·3	+11·9	−4·0	−5·9	−6·0	−1·6	+2·5	+3·2	−11·9	−4·7	−19·1	−21·1	−12·8	−13·3	−17·7	−16·6	−11·3
Year	+3·4	+6·5	+7·9	+14·1	+12·3	+9·9	−0·2	−7·5	−16·2	−25·5	−33·2	−35·1	−28·5	−13·5	−5·6	+4·5	+13·7	+20·2	+21·9	+19·3	+15·6	+7·4	+8·6	+0·3
Winter	+9·7	+9·2	+9·3	+10·6	+17·3	+20·6	+17·5	+12·3	+4·9	−7·1	−14·3	−17·1	−17·5	−12·6	−6·1	−3·3	+0·2	−3·1	−6·4	−8·4	−4·1	−2·8	−5·3	−3·5
Equinox	−6·7	+3·5	+12·1	+18·9	+11·7	+6·4	+3·3	−3·5	−18·2	−31·2	−38·5	−43·5	−35·3	−14·7	−6·7	+6·6	+17·2	+25·3	+25·4	+18·9	+17·8	+10·8	+18·2	+2·2
Summer	+7·1	+6·6	+2·4	+13·0	+7·8	+2·5	−21·4	−31·4	−35·6	−38·5	−47·0	−44·9	−32·5	−13·8	−4·0	+10·3	+23·6	+38·6	+46·7	+47·5	+33·3	+14·2	+12·8	+2·4

WEST COMPONENT

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	−19·2	−15·6	−0·9	−2·5	+7·1	+6·9	+3·8	+1·8	−3·1	−5·5	−1·5	+7·0	+15·9	+20·9	+26·0	+22·7	+22·9	+24·1	+7·4	−21·0	−30·1	−24·8	−20·5	−21·6
Feb.	−8·5	−15·0	−10·4	−6·6	+1·7	−4·1	+0·3	−0·1	−4·5	−3·2	+1·3	+7·1	+19·5	+23·8	+25·3	+23·3	+7·7	+5·8	+7·7	+0·5	−9·0	−20·5	−22·0	−20·0
Mar.	−22·6	−20·5	−38·8	−13·1	+6·2	+11·9	+14·4	−6·8	−3·1	−11·6	−10·2	+11·2	+26·6	+42·1	+35·2	+33·7	+22·8	+10·6	−5·2	−8·3	−22·2	−11·1	−23·8	−17·2
Apr.	−28·4	−47·3	−28·9	−20·2	−2·3	−2·6	−16·3	−23·2	−22·5	−18·9	−5·3	+12·0	+29·1	+39·6	+37·0	+32·2	+26·8	+23·4	+5·5	+4·3	−2·9	+4·4	+2·2	+2·4
May	−9·1	−10·1	−7·7	−10·5	−18·9	−31·3	−23·0	−11·3	−34·2	−23·4	−13·8	+7·7	+26·5	+28·4	+33·0	+19·0	+23·7	+22·0	+15·1	+7·2	+7·9	+7·1	−0·1	−4·3
June	−5·1	−19·1	−21·6	−20·6	−27·7	−31·2	−34·9	−41·9	−34·5	−28·2	−8·3	+11·0	+31·3	+32·9	+43·0	+45·1	+30·2	+25·8	+18·0	+14·7	+8·4	+7·0	+4·1	+1·6
July	−4·3	−18·3	−15·5	−10·2	−8·9	−22·2	−29·2	−22·1	−24·8	−17·3	−11·5	+6·4	+19·9	+28·1	+30·7	+22·1	+20·9	+19·4	+13·9	+14·5	+1·1	+3·3	+5·8	−1·9
Aug.	−17·5	−34·0	−45·5	−28·3	−12·9	−21·8	−26·9	−9·7	−43·1	−31·7	−8·3	+18·2	+35·8	+49·8	+45·4	+50·5	+32·7	+28·7	+32·3	+14·2	+19·2	−13·9	−11·9	−21·0
Sept.	−14·3	−11·0	−14·1	−22·1	−12·5	+5·7	+7·5	−4·6	−11·5	−5·4	−0·7	+13·8	+25·8	+33·8	+32·1	+28·5	+16·3	+9·9	+3·8	−4·5	−18·9	−31·1	−9·1	−17·5
Oct.	−71·1	−56·2	−48·4	−40·6	−5·4	+42·6	+26·7	+6·9	−7·1	+8·2	+15·4	+22·1	+31·4	+36·7	+33·7	+30·8	+9·4	+9·7	−1·5	+0·7	−19·7	−18·2	−5·1	−1·2
Nov.	−27·3	−20·3	−18·4	+0·5	+5·2	+19·2	+18·4	+18·3	+9·6	+7·6	+5·9	+11·2	+27·5	+25·7	+30·8	+15·5	+12·6	+6·8	+0·6	−2·2	−35·0	−45·4	−35·1	−31·6
Dec.	−13·2	−8·4	−2·4	+3·7	−1·4	−5·0	+0·2	+3·9	−2·5	−4·9	+3·1	+5·6	+13·1	+18·9	+30·2	+27·4	+35·9	+15·2	+18·4	−14·4	−32·9	−40·3	−24·9	−25·5
Year	−20·1	−23·0	−21·1	−14·2	−5·8	−2·7	−4·9	−7·4	−15·1	−11·2	−2·8	+11·1	+25·2	+31·8	+33·5	+29·3	+21·9	+16·8	+9·7	+0·5	−11·2	−15·3	−11·7	−13·2
Winter	−17·1	−14·8	−8·0	−1·2	+3·1	+4·3	+5·7	+6·0	−0·1	−1·5	+2·2	+7·8	+19·0	+22·3	+28·0	+22·2	+19·7	+13·0	+8·5	−9·3	−26·7	−32·7	−25·6	−24·7
Equinox	−34·1	−33·8	−32·6	−24·0	−3·5	+14·5	+8·1	−6·9	−11·0	−7·0	−0·2	+14·7	+28·3	+38·1	+34·5	+31·3	+18·8	+13·4	+0·7	−1·9	−16·0	−14·0	−8·9	−8·4
Summer	−9·0	−20·4	−22·6	−17·4	−17·1	−26·6	−28·5	−21·2	−34·2	−25·2	−10·5	+10·9	+28·4	+34·8	+38·1	+34·2	+26·9	+24·0	+19·8	+12·7	+9·2	+0·9	−0·5	−6·4

VERTICAL COMPONENT

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	−12·5	−16·0	−16·9	−18·7	−27·9	−34·2	−27·3	−18·9	−13·9	−13·8	−12·7	−10·7	−8·5	−5·4	+9·5	+28·7	+23·5	+45·0	+54·3	+47·1	+26·1	+6·0	−0·3	−2·5
Feb.	−15·3	−16·1	−21·3	−17·9	−17·7	−18·4	−18·1	−16·3	−13·9	−10·9	−8·7	−7·7	−3·5	+9·1	+14·5	+27·7	+34·1	+31·4	+20·5	+22·3	+17·1	+11·1	+3·5	−5·5
Mar.	−30·8	−45·1	−47·2	−42·8	−62·6	−70·7	−61·4	−37·2	−21·2	−16·3	−5·2	+4·2	+11·8	+30·5	+42·4	+52·8	+82·4	+87·9	+82·0	+41·8	+33·2	+3·7	−11·0	−21·2
Apr.	−13·4	−34·1	21·8	−17·9	−22·9	−24·4	−18·7	−8·3	−6·4	−6·9	−8·0	−9·5	−4·7	+6·0	+17·7	+20·0	+22·7	+23·2	+27·7	+24·5	+20·8	+15·7	+10·8	+7·9
May	−10·6	−20·1	−49·0	−49·1	−36·7	−31·8	−28·3	−26·5	−19·8	−16·5	−12·8	−10·1	+0·2	+16·9	+27·8	+41·5	+51·7	+51·2	+49·3	+44·5	+27·4	+18·9	+6·8	−24·9
June	−2·3	−17·0	−24·2	−27·7	−23·8	−14·6	−10·7	−6·4	−5·8	−9·7	−14·6	−18·6	−15·1	−9·8	−1·6	+12·1	+29·6	+33·6	+34·9	+29·8	+25·8	+19·7	+11·8	+4·6
July	−7·1	−13·2	−18·3	−13·3	−14·5	−12·6	−6·9	−7·9	−6·9	−8·0	−10·7	−14·1	−11·3	−6·6	+3·7	+15·1	+22·7	+25·0	+25·9	+20·7	+20·5	+13·6	+6·9	−2·7
Aug.	−45·0	−60·2	−45·5	−39·6	−59·6	−44·8	−42·2	−52·2	−35·9	−7·4	+1·8	+2·4	+12·8	+43·4	+57·7	+79·4	+80·6	+72·4	+64·2	+58·0	+26·7	−11·6	−24·8	−30·6
Sept.	−18·1	−32·9	−31·4	−35·1	−33·7	−31·5	−26·5	−20·5	−14·4	−11·3	−6·9	−5·1	+2·9	+15·9	+28·2	+36·7	+44·7	+38·7	+34·9	+33·1	+22·8	+11·7	+2·9	−5·1
Oct.	−140·7	−60·1	−56·9	−57·7	−63·5	−82·6	−66·9	−34·9	−10·7	+2·1	+12·1	+30·9	+33·5	+53·3	+63·1	+71·3	+72·9	+65·0	+47·1	+41·3	+26·3	+31·1	+31·7	−7·7
Nov.	−46·1	−39·7	−41·8	−41·3	−38·7	−30·9	−27·7	−22·7	−14·0	−10·7	−5·5	+2·9	+8·9	+17·9	+27·8	+50·7	+58·5	+42·7	+47·9	+46·7	+29·2	+1·3	−5·5	−9·9
Dec.	−19·0	−18·6	−16·7	−16·6	−18·2	−18·8	−20·0	−21·0	−18·9	−17·6	−17·0	−14·2	−13·4	−12·4	−3·9	+13·2	+46·0	+55·0	+49·2	+48·6	+35·1	+15·2	−7·6	−8·4
Year	−30·1	−31·1	−32·6	−31·5	−35·0	−34·6	−29·6	−22·7	−15·1	−10·6	−7·3	−4·1	+1·1	+13·2	+23·9	+37·4	+47·5	+47·6	+44·8	+38·2	+25·9	+11·4	+2·1	−8·8
Winter	−23·2	−22·6	−24·2	−23·6	−25·6	−25·6	−23·3	−19·7	−15·2	−13·3	−11·0	−7·4	−4·1	+2·3	+12·0	+30·1	+40·5	+43·5	+43·0	+41·2	+26·9	+8·4	−2·5	−6·6
Equinox	−50·7	−43·1	−39·3	−38·4	−45·7	−52·3	−43·4	−25·2	−13·2	−8·1	−2·0	+5·1	+10·9	+26·4	+37·9	+45·2	+55·7	+53·7	+47·9	+35·2	+25·8	+15·5	+8·6	−6·5
Summer	−16·3	−27·6	−34·3	−32·4	−33·7	−25·9	−22·0	−23·3	−17·1	−10·4	−9·1	−10·1	−3·3	+11·0	+21·9	+37·0	+46·1	+45·5	+43·6	+38·3	+25·1	+10·1	+0·2	−13·4

INTERNATIONAL DISTURBED DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

146 ESKDALEMUIR

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
DECLINATION (measured positive towards the west)																								
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
Jan.	-4·23	-3·37	-0·39	-0·99	+0·59	+0·41	+0·09	-0·13	-1·05	-1·21	-0·09	+1·91	+4·05	+4·79	*+5·93*	+4·31	+4·75	+5·07	+2·01	-3·33	*-5·81*	-4·95	-3·89	-4·47
Feb.	-2·03	-3·74	-2·65	-1·83	-0·27	-1·92	-1·19	-0·77	-1·11	-0·04	+1·33	+2·59	+5·29	*+6·06*	+6·03	+5·49	+1·99	+1·40	+1·29	-0·11	-2·15	-4·56	*-4·85*	-4·25
Mar.	-5·69	-4·92	*-8·12*	-3·09	+0·30	+2·80	+4·03	-1·14	+0·56	-0·79	-0·06	+4·42	+6·81	*+8·52*	+7·20	+6·59	+3·36	+0·70	-2·59	-2·22	-5·16	-2·51	-5·38	-3·62
Apr.	-6·34	*-9·59*	-6·12	-4·99	-0·97	-0·82	-3·99	-4·57	-4·20	-2·61	+0·58	+4·01	+7·36	*+9·23*	+8·48	+6·77	+5·13	+3·82	+0·45	-0·03	-1·34	+0·29	-0·44	-0·11
May	-2·48	-2·51	-1·20	-3·11	-3·97	*-6·28*	-3·05	-1·07	-5·80	-3·39	-0·88	+3·91	*+7·22*	+6·97	+6·92	+4·25	+3·67	+2·42	+0·79	-0·73	-0·04	+0·37	-1·06	-0·95
June	-1·15	-4·07	-4·71	-4·61	-5·93	-6·49	*-6·73*	*-8·15*	-6·19	-4·11	+0·71	+4·15	+7·65	+8·03	*+9·09*	+8·39	+5·31	+3·89	+2·01	+1·29	+0·37	+0·77	+0·47	+0·01
July	-1·26	-4·01	-3·44	-2·53	-2·31	-5·18	*-5·99*	-4·03	-4·02	-2·27	-0·68	+3·01	+5·56	+6·73	*+6·90*	+4·77	+3·83	+3·28	+1·73	+1·39	-1·14	-0·17	+0·56	-0·73
Aug.	-3·66	-7·12	*-9·45*	-6·12	-3·04	-4·14	-3·78	+1·32	-5·75	-4·16	+0·32	+5·40	+8·20	*+8·94*	+8·73	+8·66	+5·04	+3·38	+3·64	+0·24	+2·59	-2·70	-2·58	-3·96
Sept.	-3·80	-2·81	-3·90	-5·61	-3·37	+0·40	+0·93	-1·31	-1·88	+0·03	+1·54	+4·73	+7·08	*+8·09*	+7·06	+5·97	+3·01	+1·64	+0·17	-1·45	-4·36	*-6·55*	-2·12	-3·49
Oct.	*-10·78*	-10·77	-10·44	-9·07	-0·81	*+8·28*	+5·05	+1·99	-0·38	+3·03	+4·34	+6·25	+7·74	+7·63	+6·48	+5·03	+0·89	+0·46	-1·81	-1·07	-5·14	-4·49	-2·44	+0·03
Nov.	-6·16	-4·43	-4·14	-0·19	+0·36	+3·47	+3·68	+3·69	+2·22	+2·07	+2·10	+3·33	*+6·40*	+5·71	+5·94	+2·79	+1·82	+0·75	+0·08	-0·29	-7·00	*-9·25*	-6·86	-6·09
Dec.	-3·12	-2·11	-0·94	+0·21	-1·08	-2·01	-0·94	-0·03	-1·00	-0·83	+0·88	+1·39	+2·74	+3·75	+6·00	+6·09	*+7·50*	+3·91	+4·64	-2·39	-6·14	*-7·45*	-4·36	-4·71
Year	-4·23	*-4·95*	-4·63	-3·49	-1·71	-0·96	-0·99	-1·18	-2·38	-1·19	+0·84	+3·76	+6·34	+7·04	*+7·06*	+5·76	+3·86	+2·56	+1·03	-0·73	-2·94	-3·43	-2·75	-2·69
Winter	-3·89	-3·41	-2·03	-0·70	-0·10	-0·01	+0·41	+0·69	-0·23	0·00	+1·05	+2·31	+4·62	+5·08	*+5·97*	+4·67	+4·01	+2·78	+2·01	-1·53	-5·27	*-6·55*	-4·99	-4·88
Equinox	-6·65	-7·02	*-7·15*	-5·69	-1·21	+2·67	+1·51	-1·26	-1·47	-0·09	+1·60	+4·85	+7·25	*+8·37*	+7·31	+6·09	+3·10	+1·65	-0·95	-1·19	-4·00	-3·31	-2·59	-1·80
Summer	-2·14	-4·43	-4·70	-4·09	-3·81	*-5·52*	-4·89	-2·98	-5·44	-3·48	-0·13	+4·12	+7·16	+7·67	*+7·91*	+6·52	+4·46	+3·24	+2·04	+0·55	+0·45	-0·43	-0·65	-1·41
INCLINATION																								
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
Jan.	-0·53	-0·47	-0·72	-1·15	-2·09	*-2·47*	-1·77	-1·25	-0·94	-0·40	+0·02	+0·37	+0·83	+0·40	+0·87	-0·08	+0·38	+1·03	+2·02	*+2·91*	+1·55	+0·65	+0·71	+0·14
Feb.	-0·73	-1·25	-1·19	-1·11	-1·40	-2·06	*-2·39*	-1·56	-0·57	+0·71	+1·41	+1·48	+1·67	*+1·75*	+1·35	+1·52	+1·40	+1·02	-0·02	+0·23	+0·05	-0·02	-0·17	-0·14
Mar.	-2·14	-1·98	-0·96	-1·52	*-3·12*	-1·33	-0·03	-0·44	+1·37	+2·20	+3·13	*+3·26*	+2·07	+0·09	+0·61	+0·41	-0·25	-0·23	-0·27	+0·32	+0·16	-0·14	-0·76	-0·46
Apr.	-0·82	-0·15	-0·51	*-1·53*	-1·30	-1·03	-1·28	+0·35	+0·74	+2·01	*+2·44*	+2·03	+1·72	+1·42	+1·41	+0·41	-0·31	-1·20	-0·44	-0·87	-0·60	-0·60	-1·14	-0·75
May	-1·10	-1·07	-0·54	*-2·59*	-0·83	-0·23	+2·13	+1·39	+1·77	+2·04	+2·86	*+3·27*	+2·46	+1·87	+0·55	+1·37	-0·83	-2·23	-2·52	-2·39	-1·99	-1·28	-1·45	-0·66
June	-0·15	-0·44	-0·78	-1·06	-0·66	-0·15	+0·77	+0·98	+1·61	+2·66	*+3·46*	+2·35	+1·19	+1·38	-0·10	-1·55	-0·96	-1·64	-1·92	*-2·09*	-1·56	-0·62	-0·33	-0·39
July	-0·71	-0·52	-0·68	-0·90	-1·02	-1·05	+0·15	+0·84	+1·77	+1·97	*+2·46*	+2·20	+1·80	+1·03	+0·67	+0·49	-0·38	-0·68	-1·25	*-2·12*	-1·62	-1·00	-0·87	-0·58
Aug.	-1·02	-1·31	-0·77	-1·13	-1·94	-0·34	+1·99	+3·94	*+4·43*	+3·85	+3·30	+2·43	+1·23	-1·51	-0·02	-1·25	-0·96	-2·44	*-3·41*	-2·87	-1·65	+0·10	-0·68	+0·03
Sept.	-1·65	-1·56	-2·19	*-2·31*	-1·93	-2·03	-1·69	-1·04	+0·51	+1·56	+2·45	*+2·67*	+2·57	+1·82	+1·08	+0·79	+0·40	+0·23	-0·11	+0·05	+0·02	+0·36	-0·23	+0·23
Oct.	*+3·25*	+0·35	-1·63	-2·11	-1·06	*-3·27*	-2·63	-0·06	+1·47	+2·06	+1·96	+3·18	+2·46	+1·04	+0·50	-0·59	+0·08	-0·88	-1·16	-0·88	-0·82	-0·19	-1·33	+0·24
Nov.	-1·69	-1·14	-1·38	-1·48	*-2·11*	-1·72	-1·06	-0·89	-0·08	+0·43	+1·19	*+1·53*	+1·06	+0·83	-0·25	+0·47	+0·12	-0·03	+1·11	+1·42	+1·43	+0·67	+0·80	+0·75
Dec.	-0·98	-0·97	-1·09	-1·32	-1·68	-1·95	*-2·01*	-1·85	-1·22	-0·11	-0·08	-0·03	-0·41	-0·73	-0·72	+0·74	+0·96	*+2·41*	+2·36	+2·25	+2·20	+2·10	+1·25	+0·89
Year	-0·69	-0·88	-1·04	-1·52	*-1·60*	-1·47	-0·65	+0·04	+0·91	+1·58	+2·05	*+2·06*	+1·56	+0·78	+0·50	+0·23	-0·03	-0·38	-0·47	-0·33	-0·23	+0·01	-0·35	-0·06
Winter	-0·98	-0·96	-1·10	-1·27	-1·82	*-2·05*	-1·81	-1·39	-0·70	+0·15	+0·64	+0·83	+0·79	+0·58	+0·31	+0·66	+0·71	+1·11	+1·37	*+1·70*	+1·31	+0·85	+0·65	+0·41
Equinox	-0·34	-0·83	-1·32	-1·86	-1·85	*-1·92*	-1·41	-0·29	+1·03	+1·96	+2·49	*+2·79*	+2·20	+1·09	+0·91	+0·25	-0·01	-0·52	-0·50	-0·35	-0·31	-0·13	-0·87	-0·19
Summer	-0·75	-0·84	-0·70	-1·42	-1·11	-0·44	+1·26	+1·79	+2·40	+2·63	*+3·02*	+2·56	+1·67	+0·70	+0·28	-0·23	-0·79	-1·75	-2·28	*-2·36*	-1·70	-0·70	-0·83	-0·40
HORIZONTAL FORCE																								
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	+3·2	+1·1	+4·4	+10·2	+20·8	*+24·1*	+16·2	+11·6	+8·8	+0·9	-5·0	-9·4	-15·4	-7·9	-9·4	+11·8	+3·0	+1·3	-10·0	*-25·8*	-13·4	-7·5	-10·6	-3·0
Feb.	+5·2	+12·6	+9·9	+9·8	+14·2	+23·8	*+28·8*	+17·2	+3·3	-14·6	-24·2	-24·8	*-26·0*	-22·6	-14·7	-12·4	-8·2	-3·6	+7·8	+4·8	+5·5	+4·4	+3·8	0·0
Mar.	+20·4	+12·8	-3·1	+6·8	+23·2	-6·2	-22·2	-7·2	-28·1	-38·6	*-48·4*	-46·8	-26·4	+9·8	+6·5	+13·4	+34·0	*+35·8*	+34·2	+10·6	+9·9	+3·4	+7·2	-1·0
Apr.	+7·3	-10·3	-0·4	+16·1	+10·9	+6·3	+12·1	-8·3	-13·4	-32·3	*-39·1*	-33·7	-27·3	-18·9	-14·4	+1·3	+12·9	*+26·3*	+16·7	+21·9	+16·6	+14·7	+20·9	+14·1
May	+12·4	+8·5	-10·0	+20·4	-1·2	-8·3	-42·0	-30·4	-33·6	-36·3	-47·2	*-52·2*	-36·4	-21·5	+2·0	-5·0	+31·4	+51·9	*+55·6*	+51·8	+39·6	+25·9	+24·0	+0·6
June	+1·4	+0·3	+2·7	+5·6	+0·9	-3·1	-15·4	-16·9	-26·1	-43·0	*-56·7*	-41·7	-23·2	-24·1	+0·9	+27·4	+25·1	+36·7	+41·4	*+41·9*	+32·7	+16·4	+9·3	+7·5
July	+8·0	+2·9	+3·4	+8·4	+9·8	+10·9	-4·8	-15·4	-28·8	-32·1	*-40·4*	-37·8	-30·8	-17·7	-8·6	-1·8	+14·0	+19·3	+28·0	*+39·0*	+31·6	+19·9	+15·4	+7·6
Aug.	-1·4	-2·7	-5·3	+2·2	+6·9	-11·5	-45·0	-77·7	*-78·9*	-59·8	-48·3	-35·1	-13·6	+38·3	+21·5	+47·8	+43·9	+62·9	*+74·2*	+63·9	+34·3	-5·8	+0·9	-11·7
Sept.	+17·9	+11·1	+20·9	*+21·3*	+16·3	+18·6	+15·3	+7·9	-12·9	-27·3	-38·9	*-41·5*	-37·1	-21·1	-5·7	+1·7	+10·5	+10·8	+14·5	+11·5	+8·1	-1·1	+4·5	-5·3
Oct.	*-100·0*	-27·4	+3·2	+10·0	-7·6	+18·2	+14·4	-12·0	-25·8	-29·8	-24·6	-35·8	-24·2	+4·2	+15·8	+35·0	+25·6	*+37·0*	+34·6	+28·2	+21·8	+14·2	+31·4	-6·4
Nov.	+8·1	+2·3	+5·1	+6·7	+17·1	+14·1	+5·5	+4·9	-3·9	-10·3	-19·7	*-21·7*	-12·5	-5·7	+13·9	+11·7	*+19·7*	+16·1	+1·1	-3·9	-10·5	-9·5	-13·9	-14·7
Dec.	+7·5	+7·5	+10·1	+13·5	+18·3	+22·0	*+22·5*	+19·7	+11·1	-4·9	-5·1	-4·7	+1·1	+6·3	+9·3	-6·1	+2·7	-15·6	-16·9	-15·5	-19·7	*-25·5*	-21·3	-16·3
Year	-0·8	+1·6	+3·4	+10·9	+10·8	+9·1	-1·2	-8·9	-19·0	-27·3	*-33·1*	-32·1	-22·7	-6·7	+1·4	+10·4	+17·9	+23·2	*+23·4*	+19·0	+13·0	+4·1	+6·0	-2·4
Winter	+6·0	+5·9	+7·4	+10·1	+17·6	*+21·0*	+18·3	+13·3	+4·8	-7·2	-13·5	*-15·1*	-13·2	-7·7	-0·2	+1·3	+4·3	-0·4	-4·5	-10·1	-9·5	-9·5	-10·5	-8·5
Equinox	-13·6	-3·5	+5·1	+13·5	+10·7	+9·2	+4·9	-4·9	-20·1	-32·0	-37·7	*-39·5*	-28·7	-6·5	+0·5	+12·9	+20·7	*+27·5*	+25·0	+18·1	+14·1	+7·7	+16·0	+0·4
Summer	+5·1	+2·3	-2·3	+9·1	+4·1	-3·0	-26·8	-35·1	-41·9	-42·8	*-48·1*	-41·7	-26·0	-6·3	+3·9	+17·1	+28·6	+42·7	*+49·8*	+49·1	+34·5	+14·1	+12·4	+1·0

RANGE OF MEAN DIURNAL INEQUALITIES FOR THE MONTHS, YEAR AND SEASONS OF 1948

The ranges are derived from the diurnal inequalities printed in Tables 141 to 146

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	All days			Quiet days			Disturbed days			All days			Quiet days			Disturbed days		
	N	*W*	*V*	*N*	*W*	*V*	*N*	*W*	*V*	*D*	*I*	*H*	*D*	*I*	*H*	*D*	*I*	*H*
	γ	γ	γ	γ	γ	γ	γ	γ	γ	′	′	γ	′	′	γ	′	′	γ
Jan.	28·7	32·4	24·9	27·4	24·3	6·2	45·2	56·1	88·5	7·32	1·77	25·1	5·60	1·66	26·4	11·74	5·38	49·9
Feb.	41·4	37·6	22·4	36·8	33·5	9·1	60·1	47·3	55·4	8·72	2·51	37·0	7·48	2·18	34·2	10·91	4·14	54·8
Mar.	50·8	50·2	38·0	44·6	54·9	18·0	86·2	80·9	158·6	10·75	3·02	47·6	11·78	2·66	45·3	16·64	6·38	84·2
Apr.	61·1	65·1	31·9	61·1	66·7	24·8	60·9	86·9	61·8	14·23	3·62	61·2	14·92	3·69	62·4	18·82	3·97	65·4
May	89·2	67·4	45·2	68·8	68·8	32·4	108·7	67·2	100·8	13·26	5·09	90·2	14·52	4·34	72·7	13·50	5·86	107·8
June	73·5	77·8	38·8	57·8	61·2	30·2	95·9	87·0	62·6	15·91	4·40	77·2	12·63	3·56	60·6	17·24	5·55	98·6
July	66·6	69·7	35·7	71·5	80·5	27·2	76·8	59·9	44·2	14·57	3·91	69·1	17·01	4·60	74·7	12·89	4·58	79·4
Aug.	68·4	67·7	42·4	48·7	63·3	25·2	146·5	96·0	140·8	13·12	3·88	69·6	13·29	3·01	51·0	18·39	7·84	153·1
Sept.	50·1	53·9	28·8	47·5	44·6	18·2	71·6	64·9	79·8	11·25	2·91	48·4	9·70	2·82	44·5	14·64	4·98	62·8
Oct.	59·2	50·4	61·3	49·8	42·1	11·4	123·1	107·8	213·6	11·04	3·67	52·4	9·34	3·04	47·2	19·06	6·52	137·0
Nov.	32·1	41·4	32·7	29·2	26·2	11·4	42·0	76·2	104·6	8·88	2·23	30·1	6·17	1·66	26·0	15·65	3·25	41·4
Dec.	26·5	34·2	27·2	21·7	19·6	8·0	44·6	76·2	76·0	7·37	1·84	25·2	4·70	1·32	19·6	14·95	4·42	48·0
Year	48·1	49·6	29·4	44·2	47·3	16·7	57·0	56·5	82·6	8·05	2·53	47·4	10·25	2·62	43·9	12·01	3·66	56·5
Winter	31·6	36·3	24·9	27·6	25·4	6·8	38·1	60·7	69·1	10·39	2·02	28·6	5·66	1·57	25·5	12·52	3·75	36·1
Equinox	53·2	52·6	34·4	49·5	51·8	17·1	68·9	72·2	108·0	11·40	3·06	50·3	11·37	2·94	48·4	15·52	4·71	67·0
Summer	72·4	69·9	38·8	60·1	67·4	28·2	94·5	72·3	80·4	13·86	4·27	76·2	14·36	3·75	63·6	13·43	5·38	97·9

NON-CYCLIC CHANGE

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	All days			Quiet days			Disturbed days		
	H	*D*	*V*	*H*	*D*	*V*	*H*	*D*	*V*
	γ	′	γ	γ	′	γ	γ	′	γ
Jan.	+0·1	+0·01	−0·2	+7·1	−0·24	−3·1	−6·5	+1·72	+3·8
Feb.	−0·4	−0·33	−0·2	+5·6	+0·59	+1·5	−4·7	−0·53	−0·4
Mar.	+1·3	+0·18	−0·2	+3·1	−0·18	−0·1	−15·5	−0·84	−4·0
Apr.	−0·8	+0·05	+0·4	+8·9	+0·03	−2·5	−1·2	+3·52	+11·9
May	−0·5	−0·09	0·0	+2·7	−0·50	−0·1	−6·7	+0·36	−5·5
June	+1·0	+0·12	+0·1	+3·4	+0·07	−0·6	+4·4	+0·11	+1·3
July	−0·6	−0·03	0·0	+4·7	+0·30	−2·3	−9·6	−1·02	−5·5
Aug.	+0·3	−0·25	+0·1	+6·4	+0·07	−1·1	−15·4	−0·03	+14·9
Sept.	−0·4	+0·16	+0·3	+6·6	−0·60	+1·2	−26·1	−0·60	−2·5
Oct.	−0·1	−0·03	+0·2	+10·6	+0·32	+0·7	+72·9	+6·06	+97·8
Nov.	+0·2	−0·01	0·0	+7·5	+1·07	−7·0	−4·5	+1·60	+21·1
Dec.	−0·6	−0·13	+0·1	+12·9	+0·88	−5·8	−17·2	−1·53	+5·1
Year	0·0	−0·03	+0·1	+6·6	+0·15	−1·6	−2·5	+0·73	+11·5
Winter	−0·2	−0·11	−0·1	+8·3	+0·57	−3·6	−8·2	+0·31	+7·4
Equinox	0·0	+0·09	+0·2	+7·3	−0·11	−0·2	+7·5	+2·03	+25·8
Summer	+0·1	−0·06	+0·1	+4·3	−0·01	−1·0	−6·8	−0·15	+1·3

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

MEAN MONTHLY AND ANNUAL VALUES OF TERRESTRIAL MAGNETIC ELEMENTS

For all, *a*, quiet, *q*, and disturbed, *d*, days for *H*, *D* and *V* and for all days for *N*, *W*, *I* and *T*

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	Horizontal force			Declination (west)			Vertical force			North component all days	West component all days	Inclination (north) all days	Total force all days
	a	*q*	*d*	*a*	*q*	*d*	*a*	*q*	*d*				
	16,000γ +			11° +			44,000γ +						
	γ	γ	γ	′	′	′	γ	γ	γ	γ	γ	° ′	γ
Jan.	530	531	523	53·0	52·9	53·4	1160	1158	1170	16176	3404	69 53·7	48090
Feb.	532	536	526	52·1	52·1	52·1	1153	1152	1157	16179	3400	69 53·4	48085
Mar.	530	537	512	51·3	51·2	51·3	1153	1153	1148	16178	3396	69 53·5	48083
Apr.	538	539	534	50·3	50·6	50·0	1147	1147	1142	16187	3393	69 52·9	48081
May	538	544	528	49·7	49·6	50·3	1151	1151	1149	16187	3390	69 53·0	48085
June	552	553	546	49·3	49·2	48·7	1150	1148	1150	16201	3391	69 52·0	48088
July	552	552	548	48·5	48·4	49·1	1148	1145	1148	16202	3387	69 52·0	48086
Aug.	537	542	517	47·8	47·6	48·0	1157	1157	1147	16187	3381	69 53·2	48089
Sept.	538	539	531	47·1	47·3	46·5	1160	1160	1163	16189	3378	69 53·2	48093
Oct.	523	536	494	46·4	46·7	45·7	1169	1167	1161	16175	3371	69 54·5	48097
Nov.	536	544	517	45·8	46·2	44·9	1175	1172	1183	16188	3371	69 53·7	48106
Dec.	540	549	534	45·4	45·8	45·7	1172	1169	1182	16193	3370	69 53·4	48105
Year	537	542	526	48·9	49·0	48·8	1158	1157	1158	16187	3386	69 53·2	48091

HARMONIC COMPONENT OF THE DIURNAL INEQUALITY OF MAGNETIC FORCE

Values of a_n, b_n in the series $\Sigma(a_n \cos 15nt + b_n \sin 15nt)$, being reckoned in hours from midnight G.M.T.

Longitude of Eskdalemuir Observatory, 3°12′W.

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	North component								West component								Vertical component							
	a_1	b_1	a_2	b_2	a_3	b_3	a_4	b_4	a_1	b_1	a_2	b_2	a_3	b_3	a_4	b_4	a_1	b_1	a_2	b_2	a_3	b_3	a_4	b_4
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
												ALL DAYS												
Jan.	+8·0	+5·2	−5·4	−2·3	+2·7	−1·6	−0·1	−0·3	−10·1	−5·9	−2·4	+7·6	−0·5	−1·5	+1·5	+1·0	+1·5	−10·5	−3·8	−1·4	+0·4	+1·3	−0·6	+0·1
Feb.	+13·4	+5·5	−8·3	−3·5	+3·1	−1·2	0·0	+1·5	−9·6	−8·4	−2·5	+7·9	−1·8	−2·9	+0·8	+2·7	+0·4	−10·2	−4·1	−0·8	+1·5	−0·3	−1·2	−1·2
Mar.	+17·8	−1·3	−10·5	−1·0	+3·6	−1·2	−1·0	+1·7	−10·4	−11·4	+0·8	+11·2	−1·4	−7·6	+2·0	+2·5	−0·8	−14·6	−6·3	−0·8	+2·9	+2·7	−1·5	−1·0
Apr.	+23·1	−4·0	−14·8	−1·1	+5·7	−1·6	+0·6	+0·7	−4·3	−19·7	+3·3	+12·6	−3·5	−8·2	+1·6	+0·3	+3·3	−9·2	−7·6	−3·4	+3·1	+0·8	−0·9	−0·3
May	+23·0	−17·1	−18·9	+1·2	+1·6	+1·4	+1·6	+0·7	−2·6	−23·9	+3·6	+12·1	−3·4	−5·1	+0·8	+0·2	+1·4	−16·4	−10·4	−3·9	+2·7	+0·2	−0·1	+0·7
June	+22·5	−13·0	−16·5	+2·7	+1·5	−0·7	−0·3	+1·1	−5·0	−28·2	+7·6	+13·1	−4·0	−3·5	+0·4	+0·5	+7·9	−7·9	−9·7	−3·5	+2·6	+0·5	0·0	+0·1
July	+21·8	−10·7	−15·4	+1·3	+0·1	−1·1	+0·5	+0·2	−4·6	−27·3	+7·1	+10·0	−3·9	−4·4	+0·9	−0·4	+6·5	−8·5	−8·7	−1·5	+2·0	−0·2	−0·2	+0·2
Aug.	+19·5	−14·7	−12·2	+5·5	−2·1	−1·1	+0·8	+0·9	−11·0	−21·5	+5·1	+11·2	−5·4	−5·2	+1·1	+1·3	+1·5	−18·4	−8·9	+1·3	+2·9	+1·3	−1·2	−0·5
Sept.	+20·2	−2·8	−11·2	+1·1	+2·1	−1·6	−0·3	+1·1	−11·1	−15·6	+2·4	+9·1	−3·2	−5·6	+1·2	+2·5	−0·2	−11·4	−6·8	−2·3	+2·3	+0·1	−0·9	−0·5
Oct.	+16·0	−2·9	−14·1	+0·6	+2·4	−3·6	−3·0	−0·7	−15·4	−5·5	−1·7	+9·3	−2·8	−6·9	+2·8	+2·3	−11·5	−20·6	−6·0	+1·1	+0·1	+0·2	−4·5	−1·2
Nov.	+10·7	+0·9	−8·2	+0·2	+3·3	−1·8	−0·8	+0·2	−12·7	−5·0	−3·4	+8·1	−1·9	−2·7	+1·7	+1·5	−3·3	−14·3	−3·9	−1·7	+1·0	+0·3	−1·0	+0·5
Dec.	+6·1	+5·1	−5·8	−0·2	+2·5	−1·2	+0·2	+0·9	−10·3	−3·8	−3·5	+8·0	0·0	−0·5	+1·0	+1·4	+0·1	−12·1	−3·9	−1·9	−0·2	+1·7	−0·4	−0·2
Year	+16·5	−4·1	−11·8	+0·4	+2·3	−1·3	−0·2	+0·7	−8·9	−14·6	+1·4	+10·0	−2·7	−4·5	+1·3	+1·3	+0·3	−12·9	−6·7	−1·6	+1·7	+0·8	−1·0	−0·3
Winter	+9·6	+4·2	−6·9	−1·5	+2·9	−1·6	−0·2	+0·6	−10·7	−5·7	−2·9	+7·9	−1·0	−1·9	+1·3	+1·6	−0·3	−11·8	−3·9	−1·4	+0·6	+0·8	−0·8	−0·2
Equinox	+19·3	−2·7	−12·6	−0·1	+3·5	−2·0	−0·9	+0·7	−10·3	−13·0	+1·2	+10·6	−2·7	−7·1	+1·9	+1·9	−2·3	−14·0	−6·7	−1·3	+2·1	+1·0	−1·9	−0·8
Summer	+21·7	−13·9	−15·7	+2·7	+0·3	−0·4	+0·7	+0·8	−5·8	−25·3	+5·8	+11·6	−4·2	−4·5	+0·8	+0·4	+3·5	−12·8	−9·4	−1·9	+2·5	+0·4	−0·4	+0·1
												QUIET DAYS												
Year	+16·3	−1·8	−10·2	−0·4	+2·8	−1·1	+0·2	+0·9	−3·0	−14·7	+3·6	+9·2	−3·3	−4·0	+0·8	+1·4	+4·3	−1·9	−4·5	−0·9	+1·9	−0·1	−0·7	0·0
Winter	+9·6	+2·4	−6·8	−2·1	+2·6	−0·5	−0·1	+0·9	−4·5	−5·8	+0·3	+5·5	−1·5	−2·2	+0·8	+1·1	+1·1	−3·4	−0·6	−0·1	+0·9	−0·3	−0·6	−0·1
Equinox	+19·1	+1·0	−10·7	−2·1	+3·6	−0·6	0·0	+0·9	−2·1	−14·3	+2·1	+10·9	−3·4	−5·8	+1·0	+2·2	+4·0	−0·7	−4·7	−1·4	+2·4	+0·5	−1·1	+0·1
Summer	+20·3	−8·7	−13·2	+3·1	+2·1	−2·1	+0·6	+0·7	−2·5	−23·9	+8·3	+11·1	−5·0	−3·9	+0·6	+0·9	+7·9	−1·6	−7·9	−1·3	+2·3	−0·5	−0·3	+0·1
												DISTURBED DAYS												
Year	+16·5	−9·1	−14·0	+5·0	+0·2	−1·0	−0·8	+0·1	−17·3	−12·1	−2·3	+10·1	−0·8	−5·7	+3·6	+0·1	−10·2	−33·7	−9·3	−0·6	+1·3	+3·5	−1·7	−0·7
Winter	+7·2	+6·9	−7·6	+2·5	+3·5	−2·8	−0·1	+0·1	−18·8	−1·5	−6·1	+12·1	+1·3	−0·2	+2·7	+1·4	−4·5	−29·2	−11·4	−1·0	−1·0	+4·7	−0·4	0·0
Equinox	+19·0	−8·0	−17·1	+6·5	+1·1	−1·5	−2·5	−1·0	−21·9	−6·7	−3·6	+8·9	−0·6	−11·2	+5·7	−1·8	−17·9	−36·9	−5·9	+0·7	+1·3	+3·8	−4·6	−1·5
Summer	+23·3	−26·1	−17·3	+6·1	−4·1	+1·4	+0·3	+0·4	−11·1	−27·9	+3·0	+9·4	−3·1	−5·6	+2·2	+0·7	−8·0	−34·8	−10·6	−1·6	+2·7	+1·8	−0·1	−0·5

HARMONIC COMPONENTS OF THE DIURNAL INEQUALITY OF MAGNETIC FORCE

Values of c_n, α_n in the series $\Sigma c_n \sin(15nt + \alpha_n)$, t being mean local time, reckoned in hours from midnight

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	North component								West component								Vertical component							
	c_1	α_1	c_2	α_2	c_3	α_3	c_4	α_4	c_1	α_1	c_2	α_2	c_3	α_3	c_4	α_4	c_1	α_1	c_2	α_2	c_3	α_3	c_4	α_4
	γ	°	γ	°	γ	°	γ	°	γ	°	γ	°	γ	°	γ	°	γ	°	γ	°	γ	°	γ	°
												ALL DAYS												
Jan.	9·5	60	5·9	253	3·1	129	0·3	215	11·7	243	7·9	349	1·6	207	1·8	71	10·7	175	4·1	256	1·4	25	0·6	297
Feb.	14·5	71	9·0	253	3·3	121	1·5	13	12·7	232	8·3	349	3·5	221	2·8	30	10·2	181	4·2	265	1·5	111	1·7	238
Mar.	17·9	97	10·5	271	3·8	118	1·9	341	15·4	225	11·2	11	7·7	200	3·2	52	14·7	186	6·4	269	4·0	56	1·8	248
Apr.	23·4	103	14·9	272	5·9	116	0·9	52	20·2	195	13·0	21	8·9	213	1·6	91	9·8	163	8·3	252	3·2	85	1·0	262
May	28·7	130	18·9	280	2·1	59	1·7	79	24·1	189	12·6	23	6·1	223	0·8	91	16·5	178	11·1	256	2·7	96	0·7	6
June	26·0	123	16·7	286	1·7	126	1·1	358	28·7	193	15·1	36	5·3	239	0·6	51	11·1	138	10·3	257	2·7	89	0·1	357
July	24·3	119	15·4	281	1·1	182	0·6	79	27·7	193	12·2	42	5·8	231	1·0	128	10·6	146	8·8	267	2·0	105	0·3	328
Aug.	24·4	130	13·4	301	2·3	252	1·3	54	24·1	210	12·3	31	7·5	236	1·7	52	18·5	188	9·0	285	3·2	75	1·3	260
Sept.	20·4	101	11·2	282	2·6	136	1·2	360	19·1	219	9·5	21	6·4	220	2·8	38	11·4	184	7·2	258	2·3	96	1·0	251
Oct.	16·3	103	14·1	279	4·3	156	3·1	269	16·3	254	9·4	356	7·5	212	3·6	63	23·5	212	6·1	287	0·3	43	4·6	268
Nov.	10·8	52	8·2	278	3·8	128	0·9	296	13·7	251	8·8	344	3·3	225	2·3	62	14·7	196	4·3	254	1·0	84	1·1	309
Dec.	7·9	53	5·8	275	3·2	138	1·0	22	10·9	253	8·8	343	0·5	185	1·7	48	12·1	183	4·4	250	1·7	3	0·4	250
Year	17·0	107	11·8	278	2·6	131	0·7	0	17·1	215	10·1	14	5·2	220	1·9	57	12·9	182	6·9	263	1·9	76	1·1	266
Winter	10·5	69	7·1	265	3·3	129	0·6	354	12·1	245	8·5	346	2·2	218	2·1	51	11·8	185	4·2	257	1·0	49	0·8	269
Equinox	19·5	101	12·6	276	4·0	129	1·2	319	16·6	221	10·6	13	7·5	211	2·7	57	14·1	193	6·8	266	2·3	74	2·1	261
Summer	25·8	126	16·0	286	0·5	151	1·0	54	25·9	196	13·0	33	6·2	232	0·9	78	13·3	168	9·6	265	2·6	90	0·4	302
												QUIET DAYS												
Year	16·4	99	10·2	274	3·0	121	0·9	25	15·0	195	9·8	28	5·2	229	1·6	43	4·8	117	4·5	265	1·9	104	0·7	285
Winter	9·9	79	7·1	259	2·6	110	0·9	8	7·3	221	5·5	10	2·7	224	1·4	50	3·6	166	0·6	266	1·0	120	0·6	271
Equinox	19·2	90	10·9	265	3·7	109	0·9	11	14·5	191	11·1	17	6·7	220	2·4	37	4·1	104	4·9	260	2·5	89	1·1	290
Summer	22·0	116	13·6	290	3·0	145	0·9	55	24·1	189	13·9	43	6·4	241	1·1	45	8·1	105	8·1	267	2·3	113	0·4	306
												DISTURBED DAYS												
Year	18·8	122	14·9	296	1·0	180	0·8	292	21·1	238	10·4	354	5·7	198	3·6	102	35·1	200	9·3	273	3·7	31	1·8	262
Winter	9·9	50	8·0	294	4·5	139	0·1	318	18·8	269	13·5	340	1·3	108	3·1	76	29·6	192	11·4	271	4·7	8	0·4	285
Equinox	20·6	116	18·3	297	1·8	153	2·5	281	22·9	256	9·6	344	11·2	193	5·8	120	41·1	209	6·0	283	4·0	28	4·8	265
Summer	35·0	141	18·3	296	4·4	299	0·5	46	30·0	205	9·8	24	6·4	219	2·3	85	35·7	196	10·7	268	3·2	66	0·5	210

KEW

KEW OBSERVATORY

Latitude	51°28′N.
Longitude	0°19′W.
G.M.T. of Local Mean Noon ..	12h. 1m.

Heights of instruments	*above M.S.L.*	*above ground*
	m.	*m.*
Barometer	10·4	..
Thermometer bulbs	..	3·0
Rain-gauge site	5·5	..
Tilting-siphon rain recorder rim		0·53
Sunshine recorder	..	13·3
Pressure-tube anemograph	28	23

INTRODUCTION

Full details of the site, instruments, procedure and tabulation are given in the *Observatories' Year Book, 1938*. Changes and additions only are mentioned here.

Meteorology

Notes on the instruments

Pressure.- The photographic barograph is mounted in the galvanometer room of the underground seismograph house. It was transferred there on 15 May 1939 from the position in the north room of the basement of the main Observatory building which it had occupied since the inception of the record in 1862.

Temperature.- As from January 1943, Kew adopted the practice followed by the other Observatories for the tabulation of hourly readings of temperature from the curves of the photo-thermograph i.e. by adjusting the glass scale, so that the readings at the control hours on the trace are made to show general agreement with the corresponding eye readings of the standard control thermometers, and then reading off the temperature equivalent from the curves at the requisite times. This supersedes method (*a*) set out on page 3 of the General Introduction to the *Observatories' Year Book, 1938*.

Rainfall.- On and after 1 October 1944, the hourly readings are from a Meteorological Office tilting-siphon recorder, M.O.80, instead of from the old Beckley self-registering rain-gauge No.1 which had been continuously in operation at Kew Observatory since 1871. The new instrument, whose funnel also has a collecting area of approximately 100 square inches, is set up 8·5 metres south-south-west of the standard check gauge with the rim at exactly the same height above ground level as was the old Beckley gauge, i.e. 0·53 metres. From 1 January 1945 onwards the hourly readings are adjusted to give totals in agreement with the check guage read daily at 9h. and 21h. Prior to 1 August 1944 the check gauge was read at 7h. and 18h., from 1 August to 31 December 1944 at 6h. and 16h. A special instrument, known as the rainfall chronograph, which in effect is a sensitive drop-counting gauge, is used to help in determining the duration of rainfall of 0·1 mm. per hour or more. This gauge stands on the lawn about 6·5 metres west-north-west of the tilting-siphon recorder. The Jardi rate-of-rainfall recorder has proved to be unreliable at rates below 6 mm. per hour and such values are omitted from Table 162.

Solar radiation.- The factors by which the printed values 1938 to 1945 should be multiplied are given in the Introductions for the years in question.*

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*STAGG, J. M.; Solar radiation at Kew Observatory. *Geophys. Mem., London*, 11, No. 86, 1950.

Identification numbers of instruments in use in 1948

Thermometers Nos.788 and 738 continued in use as the control dry-bulb and wet bulb thermometers respectively. Rain measure No.1846 was used as the measuring glass for the control rain-gauge throughout the year. Earth thermometer M.O.10, which had been used continuously since before 1923 to measure temperature at a depth of 122 cm., was broken on 29 December. A replacement thermometer M.O.18079, gradulated in degrees Fahrenheit, was installed on 30 December.

Thermometer corrections 1948

	No.788 N.P.L.1933		*No.738 N.P.L.1938*		*M.O.5. N.P.L.1913*		*M.O.10. N.P.L.1913*		*M.O.18079 N.P.L.1918*		*M.O.18013 N.P.L.1929*	
	°F.		°F.		°A.		°A.		°F.		°F.	
	2	+0·1	2	+0·2	250	+0·1	250	+0·3	22	0·0	2	0·0
	12	+0·1	12	+0·1	273	0·0	273	+0·1	32	0·0	22	0·0
	32	0·0	32	0·0	280	0·0	280	+0·2	52	0·0	32	0·0
Certified	52	−0·1	52	−0·1	290	0·0	290	+0·1	62	+0·1	52	0·0
	72	0·0	72	−0·1	300	0·0	300	0·0	72	0·0	72	0·0
	92	0·0	92	−0·2	310	0·0	316	+0·1	92	0·0	..	..
Applied		0·0		0·0		0·0		+0·1		0·0		0·0

Notes on the meteorological summaries

The mean temperature for the year 1948, 283·8°A. (51·5°F.), was 1·9°F. higher than the average, 282·8°A. (49·6°F.), for the period 1871-1915. The warmness of the winter months, each of the months January, February, March, November and December had a mean temperature above average, was offset by the coolness of the summer months. April to October were all below average, the mean temperature of June, July and August being 3·5°F., 3·9°F. and 3·7°F. below their respective averages. This coolness was interrupted by an exceptionally warm spell during the last week in July when the maximum temperature in the north-wall screen exceeded 300°A. (80·6°F.) for five consecutive days. The highest reading was 306·8°A. (92·8°F.) at 15h.20m. on 28 July, a record for July and the warmest day since 9 August 1911 when 307·4°A. (93·9°F.) was registered. The lowest reading of the grass minimum thermometer was 262·4°A. (12·9°F.) on 27 December whilst the lowest temperature in the north-wall screen, 267·3°A. (21·7°F.), was recorded at 00h.40m. on 26 December. There were two "ice days", i.e. days with maximum temperature in the screen of 273·0°A. (32·0°F.) or less, on 20 and 21 February.

Despite a wet January with twice the normal rainfall and August with 28 per cent in excess, the rainfall for the 1948, 545 mm., was 10 per cent below the average for the standard period 1881-1915. March, with but 35 per cent of the normal, was the only outstandingly dry month. The heaviest fall in one day was 27 mm. on 8 August.

The sunshine for the year, 1600 hours, was 131 hours above the average for the period 1906-35. March, April and May were sunny months but the totals for June, July and August were well below average.

The highest wind speed recorded in a gust was 31 m./sec. (69 m.p.h.) at 23h.50m. on 17 October. The highest on record is 33 m./sec. (73 m.p.h.) on 16 March 1947.

TABLE 152 - DIURNAL VARIATION OF BAROMETRIC PRESSURE FOURIER COEFFICIENTS

Values of c_n, α_n in the series $\sum c_n \sin(15nt + \alpha_n)$, t being local mean time reckoned in hours from midnight

	c_1		α_1		c_2		α_2		c_3		α_3		c_4		α_4	
	1948	1871-1926	1948	1871-1926	1948	1871-1926	1948	1871-1926	1948	1871-1926	1948	1871-1926	1948	1871-1926	1948	1871-1926
	mb.	mb.	°	°	mb.	mb.	°	°	mb.	mb.	°	°	mb.	mb.	°	°
January	0.59	0.02	352	315	0.20	0.31	137	151	0.20	0.17	15	346	0.05	0.07	201	202
February	0.14	0.05	36	73	0.29	0.36	150	146	0.14	0.12	333	340	0.05	0.03	67	108
March	0.54	0.11	313	38	0.49	0.40	155	149	0.04	0.07	332	332	0.01	0.04	324	25
April	0.39	0.28	55	31	0.39	0.40	154	151	0.08	0.03	170	185	0.07	0.04	341	353
May	0.39	0.32	33	27	0.37	0.35	153	148	0.09	0.09	149	161	0.01	0.02	281	319
June	0.29	0.30	56	17	0.27	0.32	146	143	0.09	0.09	138	160	0.02	0.01	303	260
July	0.20	0.26	29	16	0.35	0.31	144	140	0.14	0.10	144	153	0.01	0.01	191	281
August	0.05	0.21	269	20	0.31	0.34	138	144	0.03	0.06	60	155	0.05	0.04	290	309
September	0.18	0.12	28	6	0.36	0.40	152	152	0.05	0.01	84	350	0.05	0.04	329	332
October	0.10	0.06	34	76	0.41	0.38	164	160	0.12	0.09	353	359	0.03	0.01	315	22
November	0.13	0.03	239	124	0.31	0.34	154	160	0.15	0.13	360	358	0.04	0.03	190	183
December	0.44	0.08	275	137	0.27	0.31	148	152	0.16	0.15	349	353	0.08	0.07	198	205
Arithmetic mean	0.29	0.15			0.33	0.35			0.11	0.09			0.04	0.03		
Year	0.18	0.14	360	29	0.33	0.35	151	150	0.04	0.03	23	359	0.01	0.01	274	280
Winter*	0.22	0.03	320	111	0.27	0.33	148	152	0.16	0.14	356	350	0.04	0.05	182	208
Equinox*	0.21	0.14	4	32	0.41	0.39	156	153	0.02	0.04	19	345	0.04	0.03	331	359
Summer*	0.21	0.27	37	20	0.32	0.33	145	154	0.08	0.08	139	157	0.02	0.02	284	305

*"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

TABLE 153 - DIURNAL VARIATION OF TEMPERATURE FOURIER COEFFICIENTS

Values of c_n, α_n in the series $\sum c_n \sin(15nt + \alpha_n)$, t being local mean time reckoned in hours from midnight

	c_1		α_1		c_2		α_2		c_3		α_3		c_4		α_4	
	1948	1871-1926	1948	1871-1926	1948	1871-1926	1948	1871-1926	1948	1871-1926	1948	1871-1926	1948	1871-1926	1948	1871-1926
	°A.	°A.	°	°	°A.	°A.	°	°	°A.	°A.	°	°	°A.	°A.	°	°
January	0.95	0.99	214	221	0.37	0.43	58	35	0.17	0.17	233	208	0.02	0.01	127	3
February	1.40	1.53	221	221	0.53	0.57	40	34	0.11	0.12	217	211	0.07	0.06	185	169
March	3.24	2.45	217	222	0.82	0.63	26	40	0.12	0.07	34	334	0.11	0.11	183	197
April	3.48	3.21	227	226	0.37	0.48	53	51	0.29	0.22	17	24	0.07	0.07	242	218
May	3.88	3.72	137	227	0.09	0.15	3	74	0.28	0.31	28	35	0.09	0.04	46	20
June	2.92	3.72	221	226	0.12	0.02	301	84	0.24	0.26	48	35	0.06	0.10	44	33
July	3.20	3.68	223	225	0.14	0.06	39	50	0.14	0.29	355	31	0.11	0.07	7	28
August	2.88	3.54	240	226	0.38	0.34	90	52	0.22	0.30	76	28	0.03	0.03	344	218
September	2.70	3.22	227	228	0.57	0.71	43	49	0.13	0.14	15	24	0.16	0.16	205	213
October	2.46	2.32	227	229	0.79	0.76	47	50	0.14	0.10	261	248	0.06	0.12	193	200
November	1.38	1.39	219	226	0.66	0.57	39	44	0.26	0.18	230	232	0.05	0.02	31	141
December	0.80	0.90	222	226	0.29	0.40	41	41	0.16	0.16	207	215	0.05	0.04	20	38
Arithmetic mean	2.44	2.56			0.43	0.43			0.19	0.19			0.07	0.07		
Year	2.43	2.56	225	226	0.40	0.42	43	45	0.05	0.08	9	17	0.01	0.02	170	195
Winter*	1.13	1.20	219	223	0.46	0.49	43	39	0.17	0.15	224	217	0.01	0.01	86	121
Equinox*	2.95	2.80	224	226	0.62	0.64	40	47	0.12	0.09	5	4	0.09	0.11	203	207
Summer*	3.19	3.67	227	226	0.11	0.14	55	59	0.20	0.29	41	32	0.07	0.04	25	27

* "Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

Atmospheric electricity

No change took place during 1948 in the method and procedures for observing potential gradient, air-earth current and conductivity, from those printed in the Introduction for 1938. Details of the changes of position of the Kelvin electrograph in April 1940 and of the effects on the instrument of the erection of a fire escape in March 1941 are printed in the Introduction for the years in question.

In 1948 the mean value of the air-earth current for the year, allowing equal weight for each month, was 114 x 10^{-18} amp. cm.$^{-2}$. The mean value of the conductivity for the year was 47 x 10^{-18} ohm^{-1} cm.$^{-1}$.

The mean factor for the year for the Kelvin electrograph was 4·04 giving an equivalent height for the collector of 24·7 cm. In 1948 there were 172, 147 and 47 days of electrical character 0, 1, and 2 respectively. The extreme hourly values of potential gradient in Table 182 are 1620 volts per metre at 9h. on 1 December and -1415 volts per metre at 15h. on 3 December.

During the following months there were not 10 "quiet" calendar days.

1948	*Calendar days*	*Other spells*	*Total*
January	5	2	7
June	7	2	9
December	6	0	6

The *Observatories' Year Book, 1938* should be consulted for an explanation of the figures in the foregoing paragraphs.

Atmospheric pollution

During 1948 the highest estimate of pollution was 2·8 mg.m.$^{-3}$, this value occurring on 6 March at 19h. and 20h. There were 24 days on which the pollution reached 1·0 mg.m.$^{-3}$. The number of hours credited with 1·0 mg.m.$^{-3}$ was 125 of which 51 were recorded during November, 34 in December and 25 in March.

Seismology

The seismological diary and table of microseisms, which were printed in the *Observatories' Year Book* from 1922 to 1939 are now omitted. The distribution of the *Kew Monthly Bulletin* which ceased in May 1940 was resumed in January 1947. Seismological data for 1948 are also published in the *International Seismological Summary*.

No change took place in instruments or procedure from those printed in the Introductions for 1938, 1939 and 1947. During 1948, between May and September, each of the three Galitzin instruments was dismantled, overhauled and reinstated with the constants roughly adjusted to agree with the 1940 standardization.

The total number of shocks measured during the year was 286. The phases of 81 of these were sufficiently well defined to allow an estimate of the epicentral distance to be computed.

One British earthquake was recorded. This was felt in East Anglia (Mildenhall area) about 17h. on 28 May.

PRESSURE AT STATION LEVEL

Maximum, minimum and daily mean values in millibars for each day 0h. to 24h., G.M.T.
The initial 9 or 10 of the values is omitted, i.e. 1005·61 is printed 05·61

154 KEW OBSERVATORY: h_b(height of barometer cistern above M.S.L.) = 10·4 m.

	JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE		
	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean
	millibars																	
1	13·4	05·1	08·1	24·9	12·2	20·6	37·0	35·0	35·9	97·4	*85·3*	*90·2*	99·4	*96·5*	*98·2*	05·6	04·3	05·0
2	11·3	07·6	09·7	16·0	09·3	12·3	37·3	35·2	36·1	98·7	88·8	94·6	09·6	96·7	02·3	04·3	*94·5*	98·6
3	*14·0*	07·8	*11·7*	13·0	07·3	*10·5*	38·2	36·0	37·1	00·9	89·9	95·6	13·6	09·6	12·2	00·9	96·3	*98·5*
4	07·8	92·0	02·0	20·6	11·7	15·3	38·4	35·5	36·7	00·9	89·5	95·4	11·5	02·8	05·8	11·5	97·9	07·4
5	09·9	85·9	98·6	20·6	*06·3*	14·7	35·8	31·6	33·5	07·0	95·0	99·2	19·6	06·3	12·1	14·2	10·7	12·7
6	09·7	79·3	96·1	20·3	06·5	11·3	32·2	29·5	30·8	09·0	07·0	08·1	28·7	19·6	24·0	13·8	04·8	09·0
7	84·2	*71·8*	*76·2*	20·7	13·5	16·0	34·8	29·8	32·4	10·2	01·5	07·3	*31·0*	28·7	*29·9*	18·3	06·1	14·2
8	03·7	84·2	95·9	15·9	12·7	14·9	37·1	33·6	35·6	07·2	98·3	01·0	30·4	21·8	26·0	18·1	14·6	16·1
9	03·5	89·7	97·4	24·8	13·3	19·4	37·3	34·5	35·9	17·6	07·2	13·8	21·8	09·0	14·3	19·7	17·7	19·0
10	12·6	94·1	07·3	23·8	11·2	16·0	38·5	34·0	36·4	17·9	15·2	16·4	09·0	06·0	07·5	19·5	17·2	18·2
11	04·6	90·6	96·4	20·3	10·9	17·0	*39·3*	36·3	*37·7*	26·7	17·9	21·7	09·9	05·8	07·6	19·5	17·2	18·3
12	06·2	96·4	02·2	20·0	09·8	15·5	36·8	33·0	34·8	29·2	26·2	27·7	16·8	09·5	12·7	17·4	14·9	16·3
13	08·5	02·0	03·8	23·0	16·6	19·1	35·8	33·4	34·4	28·5	23·5	26·3	21·8	16·8	19·1	17·0	14·7	15·8
14	08·9	05·2	07·3	24·1	20·6	22·4	35·5	28·0	32·5	24·4	21·0	22·7	26·3	21·6	23·9	15·0	12·3	13·7
15	05·2	96·3	99·4	24·4	19·9	21·5	28·6	21·4	26·2	23·9	21·6	22·8	26·4	21·6	24·1	13·7	09·6	11·7
16	09·6	98·8	05·5	30·2	24·4	28·5	21·4	12·8	19·1	21·6	08·0	15·7	22·3	18·9	20·5	12·0	09·1	10·5
17	08·4	85·7	98·3	30·1	28·2	28·9	19·3	07·4	14·3	08·0	03·3	04·7	23·5	21·2	22·0	11·1	03·6	07·8
18	93·5	88·0	91·6	31·3	29·1	30·7	22·0	06·8	16·2	12·3	06·5	09·9	24·5	21·8	23·2	11·1	07·3	08·9
19	90·7	86·4	88·3	31·2	26·6	29·2	23·5	18·2	20·3	12·3	07·3	09·7	22·0	18·0	20·2	08·8	03·5	05·4
20	97·4	90·7	93·9	26·7	23·1	24·9	25·7	23·2	24·4	11·0	07·4	09·2	18·3	15·7	16·9	17·4	08·8	14·4
21	98·9	94·8	96·9	23·6	14·7	18·7	23·6	17·7	20·2	11·0	03·2	06·7	20·4	18·3	19·5	16·7	10·2	13·2
22	99·8	94·9	98·3	16·4	12·8	14·6	25·7	18·2	22·1	12·6	03·0	07·5	20·2	11·9	15·9	14·5	09·0	11·5
23	98·8	94·1	95·8	23·5	16·4	19·7	30·0	25·6	27·8	22·0	12·6	16·5	11·9	01·5	06·1	23·1	14·5	19·0
24	97·5	94·4	96·0	25·3	23·3	24·4	31·1	27·6	29·4	29·7	22·0	25·1	10·5	00·8	05·3	*24·5*	22·8	23·7
25	98·2	89·8	95·4	25·6	23·8	24·5	27·8	24·8	26·4	38·3	29·7	33·7	11·2	04·2	09·6	24·4	23·1	*23·9*
26	89·8	80·6	84·6	24·8	20·5	22·9	27·2	24·8	25·9	*39·4*	35·1	*37·6*	14·1	02·2	06·0	23·6	17·3	21·1
27	88·6	85·1	86·9	24·0	19·2	20·9	25·0	20·0	22·5	35·1	18·3	28·0	14·5	11·8	13·3	17·3	08·9	12·8
28	91·9	86·6	89·9	30·4	24·0	27·3	20·0	16·6	18·0	18·3	01·8	06·9	12·6	11·4	11·9	12·3	06·1	08·4
29	95·9	83·1	87·4	*35·6*	30·3	*32·9*	17·9	04·7	13·3	01·8	93·7	96·9	12·4	07·1	09·3	14·6	12·3	13·6
30	00·7	93·5	96·8				05·0	02·1	03·2	99·4	92·8	95·4	16·0	12·4	14·6	16·3	11·6	13·8
31	12·2	99·0	06·2				05·6	*82·9*	*95·7*				13·2	05·1	07·4			
Mean	02·43	92·05	97·55	23·83	17·18	20·50	28·82	23·23	26·28	15·74	07·75	11·54	17·53	11·44	14·24	15·21	10·03	12·75

	JULY			AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER		
	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean
	millibars																	
1	24·2	16·1	19·5	19·1	12·7	16·2	16·8	12·8	15·0	*31·8*	29·1	*30·4*	21·3	09·9	15·2	29·4	20·3	24·7
2	*26·8*	24·2	*25·7*	12·7	08·6	09·9	16·2	97·8	07·4	29·4	23·4	26·7	10·5	07·6	09·3	20·5	11·2	14·7
3	*26·8*	22·2	24·9	17·3	08·8	12·6	97·9	*93·0*	*94·9*	23·4	18·0	20·1	09·5	05·2	07·2	11·2	08·4	09·1
4	22·2	07·1	13·6	17·8	14·7	16·6	12·7	97·9	05·1	24·4	16·9	19·5	07·1	*96·6*	*01·7*	27·5	08·5	18·4
5	18·6	08·8	14·1	14·7	09·4	11·6	14·2	11·6	12·8	27·6	24·4	26·4	11·8	*96·6*	02·8	27·6	10·9	20·7
6	23·1	18·5	20·9	09·4	98·2	04·4	17·3	10·7	13·4	27·2	24·6	25·9	14·2	06·9	12·2	10·9	07·0	08·8
7	23·0	17·4	20·2	98·2	88·0	94·6	19·3	17·2	18·0	26·1	23·9	24·7	11·7	02·0	05·5	08·3	04·6	06·4
8	21·2	17·4	18·8	99·7	*77·8*	*90·6*	21·1	18·4	19·6	29·1	26·1	27·9	34·1	11·7	24·7	12·1	03·6	09·0
9	20·7	19·0	19·7	08·8	99·7	04·6	21·7	15·8	19·7	28·9	26·0	27·5	*35·6*	28·1	32·7	09·9	95·3	03·7
10	19·7	18·3	18·9	11·3	08·6	10·4	15·8	06·6	10·3	26·9	23·1	24·7	28·1	23·9	25·3	09·6	02·1	06·2
11	18·5	08·5	13·0	11·0	99·5	05·2	11·8	04·5	07·2	23·1	12·8	18·0	27·6	23·4	25·1	02·5	88·0	96·3
12	08·5	*99·4*	03·1	08·0	99·7	04·1	12·9	98·5	08·5	14·8	10·8	13·0	28·7	26·8	27·8	98·4	88·2	93·1
13	05·9	00·2	*03·0*	15·4	05·9	09·3	15·3	04·9	12·4	14·8	06·5	12·0	26·8	24·7	25·7	01·9	98·4	00·2
14	10·0	05·8	08·0	18·4	15·4	16·9	20·5	14·1	17·9	06·9	00·6	03·4	25·2	19·1	22·4	05·5	99·9	01·9
15	11·9	09·2	10·4	15·6	11·9	12·9	25·9	15·3	19·3	06·9	03·7	05·4	19·1	02·6	10·1	24·9	05·5	15·5
16	15·1	11·5	13·0	14·9	12·8	13·8	27·9	25·2	26·3	07·3	00·0	04·8	18·5	08·7	15·6	32·7	24·9	29·9
17	15·0	04·6	11·6	14·7	10·4	12·5	25·8	21·8	23·8	00·0	*85·5*	96·0	23·6	17·5	21·6	33·7	31·0	32·0
18	11·6	04·3	08·4	10·5	05·9	07·9	24·7	22·4	23·8	95·9	86·7	*89·4*	21·3	17·3	19·3	37·6	33·6	35·6
19	11·5	09·7	10·4	12·5	06·2	09·2	24·4	20·1	22·1	16·5	95·9	06·9	21·0	18·2	19·7	*37·7*	35·6	*36·7*
20	12·4	09·9	11·4	14·4	12·2	13·0	21·2	19·4	20·3	20·7	16·5	18·9	26·1	20·6	24·1	36·0	30·6	32·8
21	15·7	05·9	09·3	14·4	03·7	09·5	24·8	20·7	23·2	21·5	19·4	20·3	26·4	23·4	24·8	32·1	30·2	31·2
22	22·2	15·7	18·8	12·5	04·7	09·7	24·1	19·1	21·0	21·5	16·0	18·9	33·2	26·4	30·8	30·2	26·9	28·6
23	22·5	19·3	21·3	12·7	11·4	12·1	20·4	18·5	19·5	24·5	19·4	22·5	33·5	31·7	32·6	26·9	23·4	24·6
24	19·5	16·8	17·9	15·3	11·6	13·6	20·1	18·2	19·0	19·4	07·1	14·2	34·3	32·5	*33·5*	26·5	22·6	23·9
25	23·4	19·0	21·3	11·6	07·6	09·5	19·3	15·7	17·1	07·3	98·6	03·3	33·8	29·5	31·4	33·4	26·5	30·1
26	23·4	21·0	22·6	21·8	11·4	17·2	15·9	09·2	11·6	21·6	07·3	15·3	29·5	26·9	28·1	34·2	27·3	32·0
27	22·7	18·4	20·5	23·9	21·4	22·8	09·8	08·2	09·3	22·1	18·0	20·2	26·9	23·8	25·3	27·3	18·8	21·2
28	18·4	13·4	15·7	26·3	23·2	24·4	14·5	08·0	10·1	19·3	16·7	17·6	30·3	25·2	27·8	22·0	08·6	17·4
29	14·6	11·7	13·3	*27·1*	24·7	*25·9*	26·4	14·5	20·1	20·3	17·9	19·2	32·3	30·2	31·5	19·1	10·3	16·5
30	15·3	11·8	13·1	25·8	22·1	23·9	*31·6*	26·4	*30·1*	23·5	17·4	19·6	32·2	29·4	30·9	16·5	85·7	01·3
31	19·2	15·3	17·5	22·1	12·7	17·4				25·3	21·3	23·5				93·3	*76·8*	*88·3*
Mean	18·18	12·92	15·48	14·77	08·42	11·74	19·01	12·88	15·96	19·61	13·34	16·65	24·47	18·21	21·49	20·63	11·76	16·48
									Annual	18·32	11·59	15·02						

PRESSURE AT STATION LEVEL

Monthly and annual means of hourly values in millibars at exact hours, G.M.T.

155 KEW OBSERVATORY: h_b = 10·4 m.

	Hour G.M.T. 0	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean
	millibars																									
Jan.	97·69	97·69	97·87	97·95	97·80	97·79	97·74	97·96	98·17	*98·37*	98·33	98·13	97·67	97·32	97·02	96·99	*96·97*	*96·97*	96·99	96·98	96·98	97·02	97·17	99·51	97·65	97·55
Feb.	20·35	20·29	20·22	20·20	20·13	20·11	20·17	20·28	20·53	20·71	20·74	20·81	20·68	20·42	20·18	*20·08*	20·08	20·28	20·65	20·85	20·90	20·91	20·99	21·05	*21·15*	20·50
Mar.	26·87	26·75	26·59	26·42	26·45	26·63	26·80	27·08	27·32	*27·49*	27·47	27·26	26·94	26·46	25·97	26·65	25·40	*25·25*	25·30	25·43	25·55	25·60	25·53	25·38	25·25	26·28
Apr.	11·82	11·65	11·51	11·38	11·26	11·33	11·58	11·71	11·76	11·76	11·57	11·47	11·38	11·27	11·09	10·94	*10·87*	10·94	11·11	11·49	11·94	12·23	12·32	*12·33*	12·29	11·54
May	14·58	14·43	14·25	14·14	14·13	14·29	14·41	14·58	14·62	14·62	14·48	14·36	14·16	13·96	13·80	13·67	13·60	*13·58*	13·70	13·92	14·32	14·65	14·78	*14·82*	14·78	14·24
June	13·02	12·88	12·70	12·58	12·58	12·64	12·69	12·80	12·95	12·89	12·77	12·66	12·63	12·53	12·43	12·41	*12·34*	12·34	12·47	12·63	12·90	13·22	13·33	*13·41*	13·38	12·75
July	15·91	15·62	15·44	15·26	15·27	15·39	15·57	15·72	15·80	15·81	15·69	15·65	15·54	15·38	15·25	15·17	15·03	*14·95*	14·98	15·13	15·40	15·76	15·91	*15·97*	15·87	15·48
Aug.	11·98	11·81	11·68	11·55	11·43	11·38	11·46	11·68	11·90	*12·08*	12·07	12·02	11·89	11·75	11·66	11·52	11·46	11·36	*11·35*	11·53	11·79	11·82	11·81	11·85	11·78	11·69
Sept.	15·95	15·87	15·72	15·55	*15·53*	15·60	15·79	15·99	16·25	16·36	16·28	16·11	16·00	15·85	15·73	15·62	15·54	15·61	15·77	16·04	16·27	16·45	16·55	16·56	*16·57*	15·96
Oct.	16·98	16·88	16·74	16·53	16·47	16·49	16·55	16·78	17·00	*17·23*	17·15	17·03	16·68	16·33	16·20	16·12	*16·04*	16·17	16·50	16·68	16·83	16·86	16·78	16·66	16·65	16·65
Nov.	21·40	21·30	21·21	21·07	21·02	21·03	*21·01*	21·28	21·61	21·85	22·02	*22·03*	21·72	21·47	21·28	21·30	21·38	21·52	21·65	21·71	21·69	21·78	21·75	21·65	21·67	21·49
Dec.	16·95	16·80	16·88	16·77	16·62	16·57	16·69	16·78	16·97	17·36	*17·53*	17·40	17·10	16·64	16·31	16·25	16·15	16·08	16·00	15·89	15·75	15·69	15·56	15·42	*15·26*	16·48
Annual	15·26	15·13	15·04	14·92	14·86	14·91	15·01	15·19	15·38	*15·51*	15·48	15·38	15·17	14·91	14·71	14·61	*14·54*	14·55	14·67	14·82	14·99	15·13	15·14	15·18	15·15	15·02

The initial 9 or 10 of the value is omitted, i.e. 1001·42 is printed 01·42.

PRESSURE REDUCED TO MEAN SEA LEVEL

Monthly and annual means of hourly values in millibars at exact hours, G.M.T.

156 KEW OBSERVATORY: h_b = 10·4 m.

	Hour G.M.T. 0	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean
	millibars																									
Jan.	98·96	98·96	99·14	99·22	99·07	99·06	99·01	99·23	99·44	*99·64*	99·60	99·40	98·93	98·58	98·28	98·26	*98·23*	*98·23*	98·26	98·24	98·24	98·29	98·43	98·77	98·92	98·81
Feb.	21·66	21·60	21·53	21·51	21·44	21·42	21·47	21·59	21·84	22·01	22·04	22·11	21·98	21·72	21·47	*21·37*	21·38	21·58	21·95	22·16	22·21	22·21	22·29	22·36	*22·46*	21·81
Mar.	28·18	28·05	27·89	27·72	27·76	27·94	28·11	28·39	28·63	*28·80*	28·77	28·55	28·23	27·74	27·25	26·93	26·69	*26·53*	26·58	26·72	26·84	26·90	26·83	26·68	26·56	27·58
Apr.	13·10	12·93	12·79	12·66	12·54	12·61	12·87	12·99	13·04	13·03	12·84	12·73	12·64	12·53	12·35	12·19	*12·13*	12·20	12·37	12·75	13·21	13·50	13·60	*13·61*	13·57	12·81
May	15·89	15·70	15·53	15·42	15·41	15·57	15·68	15·85	15·89	15·89	15·74	15·61	15·41	15·21	15·04	14·92	14·85	*14·83*	14·95	15·17	15·57	15·91	16·04	*16·09*	16·05	15·50
June	14·28	14·15	13·97	13·85	13·84	13·90	13·95	14·06	14·20	14·14	14·02	13·90	13·87	13·76	13·67	13·65	13·58	*13·57*	13·71	13·87	14·14	14·47	14·57	*14·67*	14·65	14·00
July	17·16	16·88	16·70	16·52	16·53	16·65	16·83	16·97	17·05	17·06	16·94	16·89	16·77	16·62	16·48	16·40	16·26	*16·18*	16·22	16·37	16·65	17·00	17·15	*17·22*	17·12	16·73
Aug.	13·23	13·06	12·93	12·81	12·69	*12·63*	12·72	12·93	13·15	*13·32*	13·31	13·25	13·13	12·99	12·90	12·75	12·69	12·60	12·59	12·77	13·03	13·06	13·06	13·10	13·03	12·93
Sept.	17·21	17·14	16·99	16·81	*16·80*	16·87	17·05	17·25	17·51	17·62	17·52	17·36	17·24	17·09	16·98	16·86	16·79	16·85	17·02	17·30	17·53	17·70	17·82	17·82	*17·83*	17·22
Oct.	18·27	18·16	18·02	17·82	17·75	17·73	17·84	18·06	18·28	*18·51*	18·43	18·30	17·95	17·60	17·46	17·38	*17·30*	17·43	17·77	17·96	18·11	18·13	18·07	17·94	17·94	17·93
Nov.	22·70	22·59	22·51	22·37	22·32	22·33	*22·31*	22·58	22·91	23·15	23·31	*23·32*	23·00	22·76	22·57	22·59	22·66	22·81	22·94	23·01	22·98	23·07	23·05	22·95	22·97	22·78
Dec.	18·25	18·10	18·18	18·07	17·91	17·87	17·98	18·08	18·26	18·65	*18·83*	18·69	18·39	17·93	17·59	17·53	17·44	17·37	17·29	17·18	17·04	16·98	16·85	16·71	*16·55*	17·77
Annual	16·54	16·41	16·32	16·20	16·14	16·19	16·29	16·47	16·65	*16·79*	16·75	16·65	16·43	16·48	15·97	15·87	*15·80*	15·81	15·93	16·09	16·26	16·40	16·41	16·45	16·43	16·29

The initial 9 or 10 of the value is omitted, i.e. 1001·42 is printed 01·42.

The monthly and annual values of pressure reduced to mean sea level are computed from the corresponding monthly and annual means of pressure at station level and of temperature. See General Introduction to the Meteorological Tables, 1938.

TEMPERATURE

Monthly and annual means of readings in degrees Absolute at exact hours, G.M.T.

157 KEW OBSERVATORY: North-wall screen: h_t = 3·0 m.

	Hour G.M.T. 0	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean
	degrees Absolute																									
Jan.	79·14	79·03	79·01	78·80	78·67	78·69	78·64	78·60	*78·57*	79·00	79·59	80·07	80·61	*80·86*	80·78	80·77	80·49	80·15	80·02	79·93	79·85	79·76	79·74	79·54	79·27	79·59
Feb.	77·65	77·46	77·33	77·28	77·17	77·09	76·95	*76·92*	77·14	77·62	78·19	79·07	79·55	79·80	*80·14*	80·03	79·78	79·33	78·80	78·38	78·17	78·00	77·87	77·71	77·53	78·25
Mar.	79·99	79·82	79·47	79·13	78·76	78·71	*78·60*	78·72	79·47	80·59	81·72	82·81	83·80	84·75	85·17	85·40	*85·51*	85·00	83·89	82·80	81·93	81·32	80·77	80·39	80·03	81·61
Apr.	80·89	80·64	80·28	80·08	79·99	*79·80*	79·94	80·92	82·16	83·42	84·32	85·27	85·77	86·36	86·65	*86·81*	86·64	86·25	85·62	84·68	83·54	82·60	82·02	81·50	80·98	83·17
May	83·14	82·66	82·33	81·95	*81·72*	82·01	82·64	83·62	84·71	85·72	86·65	87·58	88·32	88·88	89·34	89·46	*89·57*	89·37	88·96	87·85	86·48	85·42	84·51	83·70	83·22	85·69
June	85·82	85·54	85·15	84·87	*84·68*	84·94	85·49	86·24	87·03	87·65	88·16	88·95	89·51	89·87	90·33	90·74	90·82	*90·83*	90·17	89·66	88·47	87·68	87·02	86·40	85·93	87·75
July	87·56	87·19	86·91	86·63	*86·55*	86·55	87·06	87·74	88·68	89·48	90·34	91·18	91·89	92·57	92·84	*92·93*	92·73	92·43	92·27	91·55	90·64	89·62	88·80	88·15	87·72	89·67
Aug.	87·34	87·02	86·68	86·39	86·14	*86·00*	86·27	87·07	87·96	89·03	89·83	90·57	91·05	91·64	91·93	*92·01*	91·67	91·43	91·00	90·02	89·17	88·53	88·05	87·65	87·29	88·93
Sept.	85·98	85·79	85·65	85·47	85·33	85·25	*85·23*	85·53	86·43	87·56	88·49	89·22	89·95	90·30	90·54	90·57	*90·59*	89·99	89·09	88·11	87·53	87·02	86·60	86·28	85·86	87·61
Oct.	81·99	81·79	81·61	81·55	81·39	81·17	*81·09*	81·24	81·87	82·78	83·77	84·97	85·81	86·24	*86·37*	86·09	85·80	85·04	84·20	83·60	83·16	82·68	82·28	82·12	81·79	83·27
Nov.	80·00	79·91	79·79	79·68	79·55	79·42	79·37	79·16	*79·16*	79·55	80·32	81·22	82·06	82·46	*82·60*	82·52	81·87	81·33	81·02	80·77	80·59	80·43	80·10	79·90	79·91	80·53
Dec.	79·26	79·23	78·98	*78·95*	79·00	79·08	79·06	79·01	79·04	79·30	79·59	80·01	80·44	80·84	*80·95*	80·83	80·44	80·13	80·07	79·91	79·79	79·80	79·71	79·64	79·39	79·72
Annual	82·42	82·19	81·95	81·75	81·59	*81·57*	81·71	82·08	82·70	83·49	84·27	85·10	85·75	86·24	*86·49*	*86·54*	86·35	85·96	85·45	84·80	84·13	83·59	83·14	82·77	82·43	83·83

The initial 2 or 3 of the readings is omitted, i.e. 275·00 degrees Absolute is printed 75·00.

Add 0·16° to obtain temperature in degrees Kelvin where $T(°K.) = t(°C.) + 273·16$.

Maximum, minimum and daily mean values in degrees Absolute for each day 0h. to 24h., G.M.T.
The initial 2 or 3 of the values is omitted, i.e. 275·0° is printed 75·0°. Add 0·16° to obtain temperature in degrees Kelvin where $T(^{\circ}K.) = t(^{\circ}C.) + 273{\cdot}16$

158 KEW OBSERVATORY: North-wall screen: h_t(height of thermometer bulb above ground) = 3·0 m.

	JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE		
	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean
	degrees Absolute																	
1	85·8	77·5	82·3	83·3	79·1	81·5	85·6	74·8	79·5	83·6	79·0	80·7	84·9	79·3	81·5	88·6	81·6	85·1
2	*86·3*	83·1	84·7	85·5	82·2	*83·8*	79·1	75·6	76·9	83·1	78·2	80·3	83·7	77·3	*79·8*	88·6	82·3	85·2
3	85·8	83·4	84·5	83·9	77·3	80·8	82·2	75·2	77·4	84·3	77·1	80·2	85·9	*74·1*	80·5	86·7	*80·9*	*83·7*
4	86·2	83·8	*84·8*	82·3	77·2	79·1	81·4	75·1	77·7	82·7	77·1	*79·3*	87·2	78·5	82·7	89·6	83·4	86·2
5	84·0	76·3	80·5	81·3	77·4	79·5	78·4	73·8	*76·0*	83·5	75·3	79·5	89·4	79·8	84·8	89·0	83·8	86·4
6	82·4	73·9	77·8	82·4	77·4	79·6	85·6	74·5	78·1	84·1	77·1	80·6	90·1	77·9	84·3	88·6	82·3	86·2
7	83·8	78·5	81·5	84·7	77·2	81·8	85·1	73·9	80·9	87·3	79·0	83·1	92·6	78·3	86·0	91·0	83·5	87·3
8	79·9	76·1	77·7	85·4	83·0	84·2	86·5	81·7	83·3	84·1	78·3	81·6	92·0	79·7	86·5	95·5	84·3	90·3
9	81·8	73·9	78·0	85·4	77·4	81·9	*94·4*	79·5	*85·6*	85·4	77·6	81·5	93·6	80·9	87·5	94·8	85·3	89·3
10	80·7	77·3	78·9	84·1	76·8	81·7	87·5	79·1	83·8	85·8	*75·1*	81·2	91·7	84·0	87·8	93·1	84·6	87·9
11	82·9	80·7	82·1	82·4	78·7	81·1	89·2	77·0	82·4	86·3	79·7	82·9	93·1	84·9	88·3	92·6	84·3	87·6
12	84·9	79·7	82·0	82·5	78·3	80·4	88·9	74·8	81·7	89·3	75·6	82·8	89·6	83·1	86·1	93·3	84·3	88·3
13	86·2	82·8	84·7	86·1	77·9	82·2	90·5	75·8	82·4	89·4	78·4	84·4	93·6	80·9	87·2	98·0	84·4	90·2
14	82·8	77·8	80·5	83·3	80·6	82·1	91·8	78·3	83·8	88·3	79·3	83·5	95·4	81·6	88·8	*98·4*	88·1	*93·2*
15	79·7	75·8	77·9	84·3	80·2	82·3	86·3	80·2	83·1	87·2	76·4	82·1	94·7	84·3	89·4	92·0	86·2	88·8
16	78·3	74·2	77·0	80·5	76·7	78·8	85·6	81·7	83·9	86·3	78·7	82·3	96·7	83·7	90·5	91·5	85·8	87·9
17	83·0	73·2	78·1	77·4	73·7	75·9	84·9	79·6	82·6	86·8	79·8	83·3	97·0	85·5	91·5	91·5	84·7	87·5
18	80·3	75·7	77·6	76·3	72·5	74·2	84·4	78·8	81·5	90·0	76·8	83·8	*97·8*	86·2	*92·2*	90·3	84·0	87·0
19	77·5	73·0	75·3	75·2	71·3	73·7	85·9	79·3	82·6	93·6	78·9	86·8	95·9	82·2	90·2	90·1	84·0	86·7
20	77·9	*72·6*	*74·9*	71·3	*67·8*	*69·3*	86·7	81·1	84·1	92·9	82·7	87·2	90·3	82·2	86·0	91·6	83·9	87·0
21	78·3	75·0	77·1	72·6	68·0	69·8	85·3	81·1	83·2	*94·1*	81·7	*88·6*	91·3	80·9	86·8	91·3	85·0	87·4
22	79·3	74·4	76·5	74·6	*67·8*	71·6	85·2	79·2	82·2	88·4	79·9	85·6	94·2	79·6	87·6	90·1	84·4	86·4
23	78·3	74·3	76·3	74·9	73·2	74·1	85·5	75·9	80·7	88·6	79·1	84·2	86·1	79·1	81·9	93·6	82·9	88·1
24	80·2	76·5	78·2	75·8	73·5	74·4	86·1	*73·6*	79·7	90·4	79·3	85·4	87·3	77·3	81·6	94·2	81·9	88·8
25	80·7	73·7	78·1	76·3	73·1	74·5	88·0	76·4	81·8	89·3	80·9	84·3	87·1	77·8	83·4	94·9	85·3	90·9
26	80·6	76·6	78·9	77·7	73·4	75·0	88·7	79·2	83·2	89·1	80·0	83·9	85·9	81·2	83·3	97·3	88·7	92·7
27	81·8	77·5	79·0	79·8	73·9	76·2	85·7	79·7	82·0	93·1	80·1	86·7	89·3	78·5	84·1	91·3	84·9	89·0
28	81·3	74·4	78·7	85·3	74·0	79·1	90·2	78·1	82·9	89·5	82·0	84·9	87·8	77·2	84·0	89·2	83·9	86·2
29	82·4	76·3	79·8	*87·6*	73·0	80·1	85·5	79·2	83·2	86·1	79·9	82·5	85·1	80·4	82·9	87·6	82·5	85·0
30	85·0	79·1	82·1				85·6	79·2	83·1	85·4	79·5	82·0	89·3	79·2	84·1	89·7	82·8	86·3
31	84·1	80·5	81·9				83·0	75·5	80·5				88·4	82·4	85·1			
Mean	82·0	77·0	79·6	80·8	75·6	78·2	86·1	77·6	81·6	87·6	78·7	83·2	90·5	80·6	85·7	91·8	84·1	87·7

	JULY			AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER		
	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean
	degrees Absolute																	
1	88·6	82·6	85·9	*98·7*	89·1	*93·5*	92·2	85·4	88·8	92·2	84·7	87·7	83·3	78·8	81·9	81·2	74·7	77·0
2	92·6	83·0	88·0	96·4	89·3	91·5	91·2	85·0	88·5	*93·0*	85·3	*88·2*	87·2	83·0	85·1	85·0	79·3	82·4
3	93·4	82·3	88·3	90·2	87·5	89·1	90·5	86·2	87·9	90·3	84·1	86·8	*89·3*	83·8	*85·5*	85·3	83·7	84·5
4	86·7	84·8	85·9	93·2	86·9	89·7	90·5	85·4	87·3	87·3	83·0	84·5	86·3	83·1	84·6	83·7	73·7	81·3
5	90·4	84·3	87·2	92·7	87·0	89·8	91·4	86·5	88·2	86·5	76·1	82·0	84·3	79·3	82·1	81·8	73·3	79·2
6	91·7	83·2	87·4	92·8	88·7	90·5	91·8	84·5	88·1	86·8	75·9	82·7	83·8	75·2	80·0	84·6	81·6	83·1
7	90·6	85·6	88·1	93·5	89·1	90·6	91·5	83·1	87·5	87·6	79·8	83·9	82·0	79·2	80·4	86·3	84·1	*85·2*
8	90·6	83·4	86·4	93·2	87·2	89·4	92·2	87·4	89·2	90·0	76·6	83·0	82·1	75·6	79·2	85·3	82·3	83·1
9	87·6	83·5	*85·3*	93·6	87·3	89·8	*96·2*	85·8	90·7	91·9	76·9	83·4	79·8	72·0	76·7	84·6	81·2	82·9
10	88·2	82·3	85·4	91·0	86·9	88·6	94·7	89·4	*91·4*	91·3	76·4	83·2	81·9	72·5	77·9	83·6	81·5	82·6
11	89·2	81·7	86·4	91·5	86·6	88·9	91·1	84·3	88·6	90·8	81·4	85·8	84·2	76·0	79·9	85·6	81·4	84·1
12	88·6	84·9	86·2	91·2	85·0	87·9	88·1	82·2	85·1	89·6	83·4	86·5	86·0	77·8	81·5	84·6	80·5	82·9
13	92·0	84·5	87·3	90·9	83·9	86·9	89·4	82·2	86·0	88·0	81·4	85·1	87·5	78·5	82·4	85·1	80·7	83·4
14	91·3	84·3	87·9	94·2	84·1	88·3	93·0	85·0	89·5	86·8	81·0	85·0	86·9	81·8	84·4	*86·5*	83·9	*85·2*
15	89·1	86·0	87·4	93·3	86·7	89·6	92·5	84·6	87·4	86·1	79·0	83·3	85·8	81·8	84·4	84·4	77·8	80·4
16	90·7	85·2	87·5	93·5	85·9	89·0	90·6	82·0	86·1	88·0	82·8	85·4	85·4	82·1	83·6	81·9	76·8	79·0
17	90·5	*81·3*	86·9	90·7	84·0	86·9	90·5	80·5	85·9	86·7	83·3	85·9	84·3	80·0	82·6	83·5	76·4	80·4
18	95·0	87·8	91·2	91·6	82·8	*86·8*	93·1	84·2	88·7	85·6	78·5	82·0	87·4	83·6	85·8	81·7	77·6	79·5
19	96·6	89·2	91·9	92·6	84·8	87·9	91·3	86·1	88·4	84·9	77·1	80·5	87·1	83·6	85·7	79·4	77·1	78·3
20	94·7	89·5	91·5	91·2	82·0	87·2	89·9	82·0	86·7	87·0	79·5	83·3	85·4	80·5	82·9	78·0	76·4	77·3
21	93·4	87·3	90·6	91·0	82·4	87·6	85·7	77·2	*81·8*	89·5	83·7	86·5	85·0	77·8	81·4	80·0	77·2	78·6
22	92·5	84·8	88·3	92·4	86·0	89·1	87·0	*77·0*	82·5	89·5	84·0	87·4	81·5	77·6	78·9	77·7	75·4	76·7
23	92·5	83·9	88·1	92·0	85·6	88·4	90·1	82·5	85·7	86·2	80·6	83·4	78·7	76·7	77·6	78·3	73·2	76·0
24	94·4	85·5	89·3	94·2	85·0	89·7	91·2	83·0	86·9	87·9	82·1	84·4	80·7	75·8	77·6	80·1	76·6	77·9
25	98·2	85·7	92·3	94·7	88·0	91·4	92·3	80·1	86·7	86·4	76·8	82·6	81·5	71·3	76·5	77·0	68·3	74·1
26	03·1	87·0	95·2	92·2	84·9	88·6	95·2	83·3	89·3	80·3	73·2	77·9	82·1	*69·2*	75·2	73·3	*67·3*	*71·2*
27	02·9	87·9	96·3	93·1	81·3	87·5	91·7	86·5	89·8	81·2	*70·3*	*76·2*	78·8	71·4	76·4	75·2	69·1	73·0
28	*06·8*	92·9	98·8	92·7	83·2	87·8	93·4	87·9	90·4	82·2	75·8	79·5	77·2	74·5	76·1	82·1	74·2	77·0
29	06·0	93·1	*99·5*	95·1	*80·9*	87·8	91·9	85·2	88·3	81·1	78·8	80·4	76·0	71·6	*74·3*	80·3	76·4	78·6
30	04·4	91·2	96·2	95·8	82·5	88·6	92·8	82·1	86·8	80·2	73·8	78·3	76·5	74·3	75·3	81·6	75·8	79·3
31	97·6	90·5	93·3	94·0	81·8	88·5				82·0	72·8	76·7				79·7	75·0	77·0
Mean	93·9	85·8	89·7	93·0	85·4	88·9	91·4	83·9	87·6	87·0	79·3	83·3	83·3	77·6	80·5	81·9	77·2	79·7
									Annual	87·5	80·3	83·8						

MEAN RELATIVE HUMIDITY AND VAPOUR PRESSURE FOR EACH DAY

Mean percentages from readings at exact hours 0h. to 24h., G.M.T.; vapour pressure from daily mean temperature and relative humidity

159 KEW OBSERVATORY: North-wall screen: h_t = 3·0 m.

	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.	Rel. hum.	Vap. press.
	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.	%	mb.
1	93·7	11·0	83·2	9·2	79·0	7·7	70·9	7·5	80·4	8·9	76·5	10·8	71·7	10·7	69·1	16·7	72·5	13·0	82·9	13·9	90·5	10·3	96·5	7·9
2	88·5	12·2	81·6	10·6	*93·3*	7·5	74·9	7·7	76·1	*7·5*	74·2	10·5	66·8	11·4	81·7	17·4	87·5	15·4	79·5	13·7	96·9	*13·7*	86·1	10·2
3	91·4	*12·4*	87·0	9·2	91·5	7·7	67·6	6·9	73·7	7·6	70·7	*9·1*	70·9	12·4	87·1	15·9	85·1	14·4	85·1	13·4	80·9	11·7	91·2	12·4
4	85·9	11·9	80·1	7·9	87·4	7·5	80·0	7·6	82·9	10·0	74·9	11·4	*88·2*	13·1	76·1	14·5	*88·8*	14·5	75·5	10·2	79·9	10·9	86·3	9·5
5	*73·4*	7·6	91·0	8·8	92·5	7·0	69·9	*6·8*	65·8	9·1	71·3	11·0	58·6	*9·6*	88·1	16·9	80·8	14·0	73·7	8·5	72·9	8·4	84·0	8·0
6	86·3	7·4	76·3	7·4	89·5	7·9	75·8	7·9	64·9	8·7	82·4	12·5	65·4	10·7	*93·3*	*18·7*	72·6	12·5	73·9	8·9	81·1	8·1	89·6	11·1
7	90·4	10·0	83·8	9·5	92·3	9·9	80·0	9·9	65·6	9·8	75·7	12·3	77·1	13·2	85·7	17·3	83·8	13·8	72·0	9·4	84·5	8·7	81·5	11·6
8	74·8	6·4	87·1	*11·6*	91·4	*11·5*	70·2	7·8	59·7	9·2	76·0	15·0	62·9	9·7	88·5	16·5	82·7	15·2	81·3	10·0	*72·0*	6·8	86·9	10·7
9	89·3	7·8	65·2	7·4	75·0	10·9	63·1	7·0	68·1	11·3	*62·8*	11·7	67·0	*9·6*	79·3	15·2	76·6	15·5	89·0	11·2	90·5	7·2	82·1	10·0
10	77·5	7·2	80·3	9·0	65·0	8·4	69·9	7·6	81·7	13·8	75·8	12·9	75·7	10·9	74·1	13·1	82·7	*17·5*	88·0	11·0	90·7	7·9	82·6	9·9
11	*95·0*	11·0	80·0	8·6	73·4	8·7	*57·4*	7·0	85·3	*14·8*	79·8	13·3	82·5	12·7	89·4	16·2	76·6	13·6	93·1	13·8	94·1	9·4	83·9	11·1
12	87·5	10·0	71·4	7·4	80·5	9·1	61·5	7·5	*86·5*	13·0	*85·8*	14·9	85·8	13·0	71·3	12·1	83·9	11·9	*93·2*	*14·4*	92·3	10·2	93·3	11·4
13	84·3	11·6	87·6	10·2	81·3	9·6	71·2	9·6	72·4	11·7	84·6	16·6	78·2	12·7	82·0	13·0	70·4	10·5	89·4	12·6	94·0	11·1	94·9	12·0
14	80·8	8·4	*92·5*	10·7	71·8	9·3	74·4	9·5	69·4	12·5	75·0	*17·8*	77·5	13·1	77·8	13·5	79·4	14·9	88·3	12·4	91·0	12·3	89·9	*12·8*
15	86·8	7·5	76·4	8·9	83·4	10·3	62·7	7·2	60·5	11·3	75·8	13·6	70·6	11·6	79·1	15·0	79·7	13·1	93·1	11·7	92·4	12·4	78·7	8·1
16	85·8	7·0	65·4	6·0	75·3	9·8	61·4	7·2	62·8	12·6	72·6	12·3	72·5	12·0	73·0	13·3	75·3	11·4	91·9	13·2	90·9	11·6	83·0	7·8
17	91·0	8·0	62·2	4·7	83·5	10·0	*86·0*	10·8	56·5	12·0	78·0	12·9	85·0	13·5	79·7	12·7	78·7	11·7	87·3	13·0	90·9	10·9	89·0	9·2
18	74·1	6·3	*59·6*	3·9	70·5	7·8	76·3	9·9	*52·2*	11·6	77·6	12·4	78·0	16·3	77·6	12·3	80·0	14·3	84·5	9·7	93·0	*13·7*	78·7	7·6
19	85·2	*6·1*	64·9	4·2	84·1	10·0	72·9	11·5	54·8	10·8	77·6	12·2	76·8	16·8	74·0	12·5	84·2	14·7	79·9	8·3	92·1	13·5	74·1	6·6
20	90·4	6·3	61·7	*2·8*	75·6	10·0	77·2	12·5	73·3	11·0	65·0	10·4	81·1	17·3	78·5	12·7	68·0	10·7	83·3	10·4	83·3	10·2	*71·0*	5·9
21	90·2	7·4	79·6	3·7	81·0	10·1	73·5	*13·0*	55·6	8·8	73·7	12·1	70·3	13·7	90·4	15·0	*66·7*	*7·6*	88·0	13·6	89·0	9·8	78·7	7·2
22	80·4	6·3	75·0	4·1	63·6	7·4	74·5	10·9	52·7	8·7	78·7	12·1	70·0	12·2	75·5	13·8	70·7	8·4	83·3	13·7	92·6	8·6	76·9	6·1
23	86·7	6·7	62·0	4·1	68·3	7·2	69·8	9·3	73·9	8·4	68·3	11·7	72·7	12·5	80·3	14·1	85·1	12·5	74·2	9·3	95·4	8·1	82·5	6·3
24	89·0	7·9	71·1	4·8	71·5	7·0	60·5	8·7	68·9	7·7	71·2	12·8	80·0	14·8	80·3	15·3	82·8	13·2	87·4	11·8	87·8	7·5	75·3	6·5
25	85·5	7·5	69·2	4·7	*61·2*	*6·9*	64·2	8·6	75·1	9·5	74·4	15·3	75·3	16·9	74·1	15·7	83·0	13·0	91·5	11·0	85·5	6·7	85·9	5·7
26	85·3	7·9	66·3	4·7	63·1	7·8	64·9	8·5	82·5	10·3	71·2	16·3	65·8	17·6	*64·0*	*11·3*	82·7	15·3	79·5	6·9	92·7	6·6	*97·3*	*5·1*
27	86·3	8·1	72·9	5·6	64·0	7·3	66·2	10·4	63·9	8·5	65·0	11·8	66·6	19·1	69·9	11·5	84·9	16·3	79·8	*6·1*	97·9	7·6	92·6	5·7
28	92·3	8·5	80·5	7·6	64·3	7·8	69·1	9·6	72·7	9·6	74·4	11·3	63·9	*21·2*	69·7	11·7	83·2	16·5	*68·4*	6·6	*99·0*	7·5	90·8	7·4
29	89·5	8·9	76·5	7·7	85·1	10·6	69·5	8·3	84·3	10·3	71·7	10·1	*55·2*	19·1	79·3	13·3	81·3	14·1	70·9	7·3	97·5	*6·5*	77·5	7·1
30	86·0	9·9			65·5	8·1	70·4	8·1	79·0	10·4	68·9	10·5	70·4	20·0	76·4	13·5	83·4	13·1	82·3	7·3	98·7	7·1	86·1	8·2
31	82·7	9·4			81·3	8·4			79·3	11·2			75·6	18·0	77·6	13·7			90·9	7·2			85·4	6·9
Mean*	86·0	8·5	75·5	7·1	77·6	8·7	70·2	8·8	70·3	10·3	74·3	12·6	72·8	14·0	78·8	14·3	79·8	13·4	83·3	10·7	89·7	9·5	84·9	8·6

* Mean of the column.

RELATIVE HUMIDITY

Monthly and annual means of values at exact hours, G.M.T.

160 KEW OBSERVATORY: h_t = 3·0 m.

	Hour G.M.T. 0	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean*
	per cent.																									
Jan.	86·5	87·3	87·1	88·5	88·3	88·9	*89·1*	88·8	88·8	87·8	86·4	84·1	81·8	*80·7*	82·5	82·5	83·2	83·8	85·6	85·5	86·8	87·4	87·1	86·1	85·9	86·0
Feb.	80·5	80·3	80·8	81·2	81·3	80·7	*81·7*	81·2	80·6	79·1	76·1	70·9	67·4	66·2	64·4	*64·0*	65·6	68·3	73·2	75·1	77·3	78·5	78·7	79·7	80·7	75·5
Mar.	86·7	87·3	88·3	90·1	*90·4*	90·3	89·4	89·6	87·7	81·8	75·2	69·8	66·2	62·6	61·3	*59·4*	59·8	61·7	66·8	71·7	77·0	80·9	83·2	84·6	86·7	77·6
Apr.	81·2	83·4	85·2	*86·1*	85·8	85·4	85·6	81·3	75·7	69·0	64·0	58·6	55·7	53·0	52·2	*51·8*	53·7	55·6	59·9	63·7	69·0	73·3	76·4	78·6	81·5	70·2
May	82·3	85·3	86·3	*87·0*	87·0	85·7	84·4	80·7	74·8	69·5	64·5	60·3	56·7	55·1	53·5	53·7	*52·9*	53·8	57·2	61·3	66·8	71·8	76·7	80·7	82·2	70·3
June	84·6	85·5	86·4	87·8	*88·6*	87·6	85·0	81·5	76·2	72·8	69·7	66·6	63·8	64·1	63·6	60·4	*59·3*	60·8	63·8	66·7	72·7	75·6	79·0	81·9	84·2	74·3
July	82·1	83·3	84·6	85·8	86·3	*86·5*	84·7	81·3	95·1	70·2	65·9	63·8	60·4	*58·0*	*58·0*	59·1	61·1	63·7	64·5	67·0	70·6	75·5	79·0	81·1	82·4	72·8
Aug.	87·6	87·9	89·3	90·7	91·3	*91·4*	90·5	88·2	83·9	77·1	72·9	70·0	67·3	64·7	*62·8*	64·1	66·3	67·6	69·8	74·6	79·0	82·3	85·3	87·1	87·9	78·8
Sept.	87·8	89·4	89·7	90·2	*90·5*	89·8	90·4	88·8	85·5	80·5	75·0	71·7	67·4	65·8	65·3	64·6	*64·0*	67·4	72·7	78·3	81·9	84·4	86·2	86·9	87·9	79·8
Oct.	90·2	90·2	90·9	90·7	90·8	*91·2*	90·8	90·9	90·5	87·3	82·2	76·2	72·7	68·8	*68·0*	69·0	70·9	75·7	80·6	82·4	84·7	86·9	87·4	88·9	90·1	83·3
Nov.	92·2	92·2	92·5	92·4	93·2	93·7	93·6	*94·3*	94·1	92·7	90·4	86·8	83·9	81·9	81·6	*81·5*	84·1	86·2	88·3	89·9	90·8	91·4	91·9	92·5	92·3	89·7
Dec.	88·0	87·9	88·5	88·5	*88·7*	87·6	87·3	87·2	86·8	86·3	83·8	81·6	80·3	78·9	*78·0*	78·7	80·3	82·8	84·1	84·8	86·4	86·9	87·3	87·2	88·0	84·9
Annual	85·8	86·7	87·5	88·3	*88·5*	88·3	87·7	86·2	83·3	79·5	75·5	71·7	68·7	66·7	65·9	*65·7*	66·8	69·0	72·3	75·2	78·7	81·3	83·1	84·6	85·8	78·6

VAPOUR PRESSURE

Monthly and annual means of values at exact hours, G.M.T., computed from corresponding mean values of temperature and relative humidity

161 KEW OBSERVATORY: h_t = 3·0 m.

	Hour G.M.T. 0	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean*
	millibars																									
Jan.	8·2	8·2	8·1	8·2	8·1	8·1	8·1	8·1	*8·1*	8·2	8·4	8·5	8·5	8·6	*8·7*	*8·7*	8·6	8·5	8·6	8·5	8·6	8·6	8·6	8·4	8·2	8·4
Feb.	6·9	6·8	6·7	6·7	6·7	6·6	6·6	6·6	6·6	6·7	6·7	6·7	6·5	6·5	6·5	*6·4*	6·5	6·5	6·8	6·8	6·7	*6·8*	6·8	6·8	6·8	6·7
Mar.	8·7	8·6	8·5	8·5	8·3	8·3	*8·1*	8·2	8·5	8·5	8·5	8·5	8·6	8·6	8·7	8·6	8·7	8·7	8·7	8·7	8·8	8·9	8·8	8·7	*8·9*	8·6
Apr.	8·7	8·7	8·7	8·7	8·6	8·4	8·6	8·7	*8·8*	8·7	8·6	8·4	8·2	*8·1*	8·2	8·2	8·4	8·5	8·8	8·8	8·8	8·8	8·8	8·7	8·7	8·6
May	10·2	10·3	10·1	10·0	*9·8*	10·0	10·1	10·3	10·3	10·2	10·1	10·0	9·9	9·9	10·0	10·1	10·0	10·0	*10·4*	10·4	10·3	10·4	10·4	10·4	10·3	10·2
June	12·5	12·4	12·2	12·2	12·2	12·2	12·3	12·4	12·2	12·2	12·0	12·1	*12·0*	12·3	12·6	12·3	12·1	12·5	12·5	12·6	*12·8*	12·6	12·6	12·6	12·6	12·4
July	13·6	13·5	13·4	13·5	13·4	13·4	13·6	13·7	13·4	13·2	*13·0*	13·3	13·1	13·1	13·4	13·8	14·0	14·4	*14·4*	14·3	14·3	14·3	14·1	13·2	13·8	13·7
Aug.	14·3	14·1	14·0	13·9	13·8	*13·7*	13·8	14·2	14·3	14·1	13·9	14·1	13·9	13·9	13·7	14·1	14·3	14·3	14·4	14·5	14·5	14·5	*14·6*	14·5	14·3	14·1
Sept.	13·1	13·2	13·1	13·1	13·0	*12·8*	12·9	12·9	13·2	13·3	13·2	13·2	13·0	13·0	13·1	13·0	12·9	13·1	13·3	13·4	*13·5*	13·5	13·4	13·3	13·1	13·1
Oct.	10·3	10·2	10·2	10·1	10·0	9·9	*9·8*	9·9	10·3	10·6	10·6	10·7	*10·8*	10·5	10·5	10·4	10·5	10·6	10·7	10·5	10·5	10·5	10·2	10·3	10·2	10·4
Nov.	9·4	9·2	9·1	9·1	9·1	9·0	9·0	*8·9*	8·9	9·0	9·3	9·5	9·7	9·7	*9·8*	9·7	9·6	9·5	9·5	9·5	9·5	9·5	9·3	9·2	9·2	9·3
Dec.	8·4	8·4	8·3	8·2	8·3	8·2	8·2	8·2	*8·1*	8·2	8·2	8·2	8·3	8·4	8·3	8·3	8·3	8·4	8·5	8·5	8·5	*8·6*	8·6	8·5	8·5	8·3
Annual	10·2	10·1	10·0	10·0	9·9	*9·9*	9·9	10·0	10·0	10·1	10·1	10·1	10·1	10·2	10·2	10·2	10·2	10·3	*10·4*	10·4	10·4	10·4	10·3	10·2	10·1	10·2

* Mean of values, 1,2,.....23,½(0 + 24).

Amount in millimetres, duration in hours and maximum rate of fall for each day 0h. to 24h., G.M.T.

162 KEW OBSERVATORY: h_r(height of receiving surface above M.S.L.) = height of station above M.S.L. + height of receiving surface above ground = 5·5 m. + 0·53 m.

	JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE		
	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate
	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.
1	4·8	4·0	7	...	...	...	...	...	...	0·4	0·4	9	3·2	2·0	14	0·5	0·8	...
2	0·1	0·3	...	4·7	2·4	*69*	...	...	...	4·0	3·3	...	...	...	...	3·6	2·9	17
3	...	...	...	8·8	7·1	14	...	...	...	0·2	0·2	6	...	...	...	4·1	4·0	16
4	0·3	0·4	...	...	...	...	...	...	...	*9·3*	4·6	12	3·3	3·0	6	0·2	0·5	...
5	1·7	1·8	6	2·4	3·9	9	...	...	...	0·8	0·6	22	...	...	...	1·0	1·3	6
6	7·9	6·2	22	2·5	1·1	29	...	...	...	...	...	...	...	...	...	0·8	1·4	8
7	4·5	3·1	8	1·6	2·3	...	...	...	...	...	...	...	...	...	...	0·9	0·4	11
8	...	...	...	0·3	1·7	...	...	...	...	3·4	1·3	29	...	...	...	...	...	...
9	1·1	2·9	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10	3·7	3·8	...	0·2	0·3	...	...	...	...	...	...	...	...	...	...	3·8	2·6	8
11	7·3	*7·6*	7	...	...	...	...	...	...	...	...	...	11·6	2·6	*120*	...	...	...
12	1·8	2·8	9	0·9	0·7	7	...	...	...	...	...	...	...	...	...	...	...	...
13	4·2	8·7	14	1·0	1·4	...	...	...	...	...	...	...	...	...	...	...	...	...
14	0·3	0·5	12	0·1	0·3	...	...	...	...	...	...	...	...	...	...	0·1	0·1	...
15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16	...	...	...	...	0·3	...	1·1	2·6	...	0·3	0·2	6	...	...	...	1·4	0·8	29
17	6·0	6·9	6	...	...	...	1·1	1·4	6	7·3	2·6	*99*	...	...	...	5·9	*5·1*	6
18	...	...	...	...	...	...	0·9	1·7	6	...	...	...	...	...	...	1·7	0·7	7
19	...	...	...	0·1	0·3	...	0·7	1·4	...	...	...	...	...	...	...	*7·8*	1·7	66
20	2·7	2·3	13	1·4	2·5	...	...	...	...	0·2	0·4	...	...	...	...	...	...	...
21	3·8	4·1	7	*11·8*	*11·5*	...	...	...	...	0·6	0·1	32	...	...	...	...	...	...
22	...	...	...	0·6	2·0	...	...	...	...	0·1	0·2	...	...	...	...	7·7	1·2	*89*
23	9·9	6·4	6	...	...	...	...	...	...	...	...	...	5·6	5·1	7	...	...	...
24	6·3	3·8	22	...	...	...	...	...	...	...	...	...	3·6	4·8	...	...	...	...
25	...	...	...	...	...	...	...	...	...	...	...	...	6·8	2·4	22	...	...	...
26	3·5	3·5	13	...	...	...	...	...	...	...	...	...	4·8	2·8	20	...	...	...
27	1·1	0·7	8	...	...	...	...	...	...	...	...	...	...	...	...	0·1	0·3	...
28	4·3	3·2	9	...	...	...	...	...	...	1·1	2·4	6	...	...	...	2·1	2·3	9
29	*11·2*	4·0	*70*	...	...	...	0·4	0·7	...	3·1	*6·0*	6	*14·1*	8·9	34	0·6	1·4	7
30	2·6	2·5	14				1·0	2·6	...	0·8	0·7	7	...	...	...	0·2	0·1	...
31	1·7	0·8	45				*9·5*	*5·4*	*147*				3·3	*9·3*	...			
Total	90·8	80·3	–	36·4	37·8	–	14·7	15·8	–	31·6	23·0	–	56·5	40·9	–	42·5	27·6	–

	JULY			AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER		
	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate	Amount	Duration	Max. rate
	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.	mm.	hr.	mm./hr.
1	0·5	1·0	...	...	...	...	...	...	...	...	...	...	8·0	7·6	7	...	...	...
2	...	...	...	9·7	6·7	...	4·3	3·2	*97*	...	...	...	0·4	0·6	...	0·6	0·7	...
3	...	...	...	0·2	0·2	...	4·0	2·0	36	...	...	...	...	...	...	2·3	2·4	10
4	7·5	*8·1*	9	...	...	...	2·4	2·5	49	0·5	0·1	21	7·5	4·5	8	0·4	1·2	...
5	...	...	...	2·3	3·2	...	...	...	...	...	...	...	...	...	...	...	...	...
6	...	...	...	6·2	5·0	...	2·0	2·0	7	...	...	...	...	...	...	5·6	3·2	12
7	0·7	0·6	9	11·6	4·8	29	...	...	...	...	...	...	*15·0*	9·6	10	3·1	2·6	...
8	...	...	...	*27·2*	*8·1*	*45*	0·3	0·3	...	...	...	...	...	...	...	2·7	2·3	...
9	...	...	...	1·4	3·8	...	...	...	...	...	...	...	...	...	...	3·1	1·9	6
10	...	...	...	...	...	...	0·7	0·8	...	...	...	...	...	...	...	0·3	0·4	...
11	0·1	0·3	...	8·9	3·8	12	...	...	...	3·5	*5·3*	...	...	...	...	0·3	0·6	...
12	2·9	2·6	6	...	...	...	*16·1*	*7·0*	26	3·0	1·6	72	...	...	...	0·4	0·9	...
13	1·9	1·1	13	1·1	1·7	19	...	...	...	...	...	...	...	...	...	2·9	2·3	...
14	0·1	0·1	...	...	...	...	...	...	...	8·1	1·9	65	...	...	...	2·6	1·1	*25*
15	...	...	...	0·1	0·2	...	...	...	...	1·0	1·0	...	3·3	3·5	...	...	...	...
16	...	...	...	...	...	...	...	...	...	5·7	3·1	26	4·0	4·9	6	...	...	...
17	5·4	5·5	6	1·1	1·3	...	...	...	...	4·6	0·5	*77*	0·3	0·6	...	0·2	0·2	...
18	0·1	0·2	...	...	...	...	...	...	...	7·4	3·3	37	0·1	0·1	...	...	...	...
19	...	...	...	...	...	...	...	...	...	...	...	...	1·3	1·6	*21*	...	...	...
20	0·3	0·4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21	...	...	...	2·1	2·0	...	...	...	...	...	...	...	...	...	...	0·1	0·4	...
22	...	0·1	...	...	...	...	...	...	...	...	...	...	...	...	...	0·2	0·3	...
23	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
24	2·1	4·2	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
25	...	...	...	...	...	...	...	...	...	*8·4*	2·3	30	...	...	...	...	...	...
26	...	...	...	...	...	...	0·3	0·9	...	4·4	1·6	9	...	...	...	...	...	...
27	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
28	...	...	...	...	...	...	1·4	1·9	7	...	...	...	...	...	...	3·1	3·8	11
29	...	...	...	...	...	...	...	...	...	...	...	...	0·1	...	...	...	...	...
30	*8·7*	0·3	*144*	...	...	...	...	...	...	...	...	...	0·3	...	...	*15·5*	5·6	13
31	...	...	...	1·1	1·3	...				...	...	...	...	...	...	7·9	*7·0*	...
Total	30·3	24·5	–	73·0	42·1	–	31·5	20·6	–	46·6	20·7	–	40·3	33·0	–	51·3	36·9	–

RAINFALL

Monthly and annual totals of amounts in sixty-minute periods between exact hours, G.M.T.

163 KEW OBSERVATORY: h_r = 5·5 m. + 0·53 m.

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	0-24
	millimetres																								
Jan.	2·5	3·6	2·3	1·1	1·4	0·8	2·2	2·4	1·4	2·6	2·7	2·0	3·3	8·7	6·0	3·9	4·5	3·3	5·8	8·0	*9·0*	4·5	5·6	3·2	90·8
Feb.	0·4	0·5	1·2	1·4	1·3	1·4	0·6	0·5	0·3	0·9	0·7	3·5	2·9	0·9	0·8	1·7	2·1	2·4	*4·6*	1·3	1·3	2·0	2·0	1·7	36·4
Mar.	0·3	0·4	0·7	0·9	0·3	0·1	0·3	···	0·1	0·3	···	···	···	0·1	0·4	0·7	0·3	0·4	1·6	*5·6*	0·3	1·2	0·6	0·1	14·7
Apr.	0·2	1·8	2·4	0·7	0·3	0·9	2·7	2·2	1·8	2·0	0·1	0·5	···	1·2	1·8	5·2	2·6	1·6	0·4	0·7	0·4	0·8	1·1	0·2	31·6
May	0·8	1·2	1·3	0·4	0·8	1·0	1·9	1·1	3·4	6·4	3·8	2·8	1·6	1·9	1·4	0·5	0·5	2·3	*11·2*	2·7	3·0	0·6	1·1	4·8	56·5
June	0·9	4·1	2·4	2·7	1·0	2·0	2·0	0·9	1·3	1·1	0·9	0·9	6·0	2·9	0·6	0·2	0·8	0·6	0·7	*7·6*	1·5	0·6	0·7	0·1	42·5
July	···	0·2	0·3	0·1	0·7	2·3	0·4	0·3	0·3	0·5	1·3	0·9	0·9	1·7	1·4	1·5	*10·2*	1·5	4·2	0·5	0·6	0·1	0·3	0·1	30·3
Aug.	1·1	1·4	0·5	3·6	4·4	*11·9*	2·3	1·3	1·4	2·9	3·4	0·9	0·9	0·1	2·5	5·7	6·6	5·3	2·6	0·9	7·9	1·8	2·0	1·6	73·0
Sept.	0·8	0·5	···	···	···	1·5	1·0	0·1	1·0	0·6	1·8	1·4	1·4	0·8	2·5	0·8	1·4	*4·7*	3·1	2·7	2·0	1·1	0·1	2·2	31·5
Oct.	2·9	2·4	1·8	···	···	0·2	···	···	5·3	3·4	0·6	1·2	0·8	*6·2*	5·6	0·8	1·7	3·5	0·3	3·9	0·4	0·2	0·9	4·5	46·6
Nov.	0·1	0·3	2·3	2·0	*5·8*	3·5	1·9	0·8	3·0	1·5	0·6	0·8	0·5	0·2	1·3	2·4	1·4	1·7	0·8	1·6	1·5	2·7	3·2	0·4	40·3
Dec.	4·3	1·9	0·3	0·4	0·1	···	0·5	0·4	1·7	1·1	1·9	1·3	0·5	0·1	1·8	0·2	···	0·7	1·0	3·5	6·0	*6·5*	*10·9*	6·2	51·3
Annual	14·3	18·3	15·5	13·3	16·1	25·6	15·8	10·0	21·0	23·3	17·8	16·2	18·8	24·8	26·1	23·6	32·1	28·0	36·3	39·0	33·9	22·1	28·5	25·1	545·5

RAINFALL

Monthly and annual totals of duration in sixty-minute periods between exact hours, G.M.T.

164 KEW OBSERVATORY: h_r = 5·5 m. + 0·53 m.

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	0-24
	hours																								
Jan.	3·5	3·2	2·9	1·4	2·1	0·8	1·6	2·6	2·8	2·5	3·2	2·0	2·6	3·1	4·5	3·6	4·9	4·1	6·1	5·9	*6·8*	3·2	4·3	2·6	80·3
Feb.	1·3	0·7	0·9	2·4	1·7	1·8	1·2	1·2	1·6	1·6	0·8	1·4	1·5	1·1	1·2	1·7	*2·6*	2·0	2·5	1·3	1·2	1·7	2·0	2·4	37·8
Mar.	0·7	0·9	1·1	*1·5*	1·2	0·1	0·4	0·1	0·2	0·7	···	···	···	0·1	1·0	0·7	0·4	0·8	1·1	0·9	0·9	1·5	1·1	0·4	15·8
Apr.	0·6	1·9	*2·4*	1·6	1·1	1·6	1·0	1·0	1·0	0·9	0·2	0·4	···	1·0	1·1	1·2	0·7	1·0	0·4	0·7	1·5	0·4	1·1	0·2	23·0
May	0·5	1·6	1·8	1·3	2·0	2·6	2·2	1·7	2·5	*3·2*	2·2	2·2	1·2	1·5	1·7	1·2	0·6	1·9	2·4	2·0	1·6	0·8	0·8	1·4	40·9
June	0·8	2·3	2·1	*3·0*	1·7	1·2	2·0	0·7	0·7	0·7	0·7	0·9	1·1	1·3	0·5	0·2	0·4	0·6	0·5	2·0	1·5	1·3	1·2	0·2	27·6
July	0·1	0·4	0·6	0·2	1·3	2·2	1·1	1·0	0·5	1·1	1·5	1·0	0·8	1·3	1·3	0·8	*2·6*	2·1	1·8	0·8	1·0	0·3	0·5	0·2	24·5
Aug.	1·1	2·5	0·6	3·1	2·1	2·1	0·8	1·4	1·4	1·7	1·6	1·1	0·7	0·7	1·9	*3·4*	2·9	3·0	2·4	1·4	3·0	1·0	1·3	0·9	42·1
Sept.	*1·7*	1·1	···	···	···	1·4	2·0	0·2	0·8	0·4	0·5	0·6	0·9	0·5	1·2	1·0	1·2	1·2	1·0	1·4	1·4	0·6	0·1	1·4	20·6
Oct.	1·5	1·3	0·7	···	···	0·1	···	···	1·0	1·6	0·4	1·2	0·3	1·0	*2·4*	1·0	1·1	1·7	1·0	1·8	1·3	0·3	0·7	0·3	20·7
Nov.	0·3	0·5	0·8	1·1	2·1	2·0	2·1	1·6	2·0	1·6	1·2	1·0	1·3	0·3	1·0	1·1	1·0	1·4	1·2	*2·3*	1·9	1·9	2·0	1·3	33·0
Dec.	3·0	2·1	0·8	0·7	0·3	···	0·3	0·4	0·7	0·9	1·3	0·8	0·4	0·4	0·6	0·3	···	1·1	1·3	3·6	4·1	3·6	*5·2*	5·0	36·9
Annual	15·1	18·5	14·7	16·3	15·6	15·9	14·7	11·9	15·2	16·9	13·6	12·6	10·8	12·3	18·4	16·2	18·4	20·9	21·7	24·1	*26·2*	16·6	20·3	16·3	403·2

NOTES ON RAINFALL

165 KEW OBSERVATORY

Dry Periods

The following definitions are adopted by the British Rainfall Organization
An "absolute drought" is a period of at least 15 consecutive days to none of which is credited 0·2 mm. of rain or more
A "partial drought" is a period of at least 29 consecutive days, the mean daily rainfall of which does not exceed 0·2 mm.
A "dry spell" is a period of at least 15 consecutive days to none of which is credited 1·0 mm. of rain or more

"Absolute drought": February 23-March 15
"Partial drought": February 22-March 30: September 13-October 11
"Dry spell": February 22-March 15: September 13-27

Wet Periods

The following definitions are adopted by the British Rainfall Organization
A "rain spell" is a period of at least 15 consecutive days to each of which is credited 0·2 mm. of rain or more
A "wet spell" is a period of at least 15 consecutive days to each of which is credited 1·0 mm. of rain or more

There were No rain spell or wet spells in 1948.

Rainfall Duration

Hours	0·1-1·0	1·1-2·0	2·1-6·0	6·1-12·0	>12·0
	55	30	59	16	0

Continuous or Heavy Falls

The fall of the longest duration occurred on December 30-31 when 18 mm. fell in 7 hr. 48 min.

Heavy Falls in short periods

None occurred in 1948.

Rate of Rainfall (Jardi recorder)

The highest instantaneous rate of rainfall recorded by this instrument was 147 mm./hr. on March 31 whilst a rate of 144 mm./hr. occurred on July 30 and a rate of 120 mm./hr. was registered on May 11.

The maximum rate exceeded 50 mm./hr. on January 29, February 2, March 31, April 17, May 11, June 19 and 22, July 30, September 2, October 12, 14 and 17.

Solar radiation received on a surface perpendicular to the solar beam

166 KEW OBSERVATORY: h_s(height of recorder above ground) = 13·3 m.

	JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE		
	Total for day	Per cent. of possible	Solar radiation	Total for day	Per cent. of possible	Solar radiation	Total for day	Per cent. of possible	Solar radiation	Total for day	Per cent. of possible	Solar radiation	Total for day	Per cent. of possible	Solar radiation	Total for day	Per cent. of possible	Solar radiation
	hr.	%	J./cm.^{2}	hr.	%	J./cm.^{2}	hr.	%	J./cm.^{2}	hr.	%	J./cm.^{2}	hr.	%	J./cm.^{2}	hr.	%	J./cm.^{2}
1	···	···	···	1·3	14	220	2·2	22	390	9·0	70	1690	4·2	38	640	10·1	62	2000
2	···	···	···	0·1	1	70	···	···	60	3·6	28	770	1·6	11	260	5·6	34	1050
3	···	···	···	···	···	···	0·3	3	130	8·8	68	1880	8·9	60	1530	11·3	69	2280
4	0·3	4	50	6·0	*65*	1120	1·2	11	200	2·5	19	460	2·6	17	350	1·6	10	150
5	2·4	30	310	0·1	1	···	···	···	30	7·4	56	1330	10·0	67	2200	6·0	37	920
6	···	···	10	5·4	58	1140	5·3	47	530	5·4	41	850	13·0	86	2960	1·7	10	280
7	···	···	···	···	···	···	1·7	15	210	5·7	43	1120	11·6	77	1800	9·6	59	1870
8	1·9	24	220	···	···	···	1·7	15	240	7·2	54	1310	12·9	85	3140	3·9	24	690
9	···	···	30	5·3	56	1120	8·2	72	1560	6·0	45	1020	10·5	69	1950	7·8	48	1670
10	0·8	10	110	0·5	5	40	8·6	75	1730	5·6	41	930	0·8	5	160	5·0	30	540
11	···	···	···	0·2	2	30	9·3	81	1540	10·5	77	2060	2·2	14	310	5·0	30	830
12	···	···	···	4·3	44	860	9·0	77	1830	11·6	*85*	2280	0·2	1	50	5·2	31	740
13	···	···	···	···	···	···	5·1	44	640	5·8	43	1020	10·6	69	1920	6·9	42	850
14	0·3	4	50	0·1	1	···	8·7	74	1530	3·6	26	450	13·0	84	2790	3·0	18	380
15	1·0	12	200	3·1	31	650	0·8	7	100	11·2	81	2250	14·2	91	3400	4·2	25	520
16	···	···	···	4·1	41	530	0·8	7	100	10·8	78	1940	13·6	86	3140	6·0	36	640
17	···	···	···	3·2	32	440	0·6	5	60	0·9	6	130	14·5	*93*	*3650*	6·5	39	1170
18	5·7	68	770	4·6	46	570	7·4	62	1320	11·3	81	2440	*14·6*	*93*	3550	7·2	43	1170
19	6·0	71	950	3·5	35	460	0·2	2	40	7·8	55	1100	14·0	89	3620	6·6	40	920
20	2·8	33	410	3·9	38	530	0·8	7	80	8·2	58	1680	5·7	36	1380	8·5	51	1330
21	···	···	···	0·3	3	30	0·5	4	70	3·4	24	470	13·7	87	3270	2·9	17	490
22	*7·0*	*82*	*1170*	···	···	···	7·7	63	1330	6·0	42	1260	9·0	57	1970	3·4	21	530
23	···	···	···	···	···	···	6·9	57	1310	11·8	82	2790	···	···	20	11·9	72	*2380*
24	1·6	19	230	4·2	40	530	9·1	73	1620	10·4	73	1980	5·6	35	880	6·4	39	1170
25	3·6	41	420	5·5	52	590	8·7	70	1660	10·9	75	2310	3·8	24	650	4·0	24	630
26	0·4	5	20	*6·8*	64	*1170*	*10·2*	*82*	1540	*12·2*	84	*2870*	2·9	18	330	*12·7*	*78*	1930
27	1·5	17	320	5·1	48	560	9·7	77	*2210*	12·0	83	2200	8·9	55	2210	6·6	40	950
28	3·3	38	700	2·7	25	370	10·1	80	1820	7·1	49	1430	2·4	15	280	4·9	30	610
29	···	···	···	3·3	30	430	1·3	10	200	3·5	24	650	···	···	···	1·7	10	210
30	0·1	1	20				2·5	20	480	4·5	31	830	5·2	32	830	2·9	17	230
31	4·1	46	510				1·1	9	250				7·0	43	1340			
Mean	1·39		210	2·54		390	4·50		800	7·47		1450	7·66		1630	5·96		970

	JULY			AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER		
	Total for day	Per cent. of possible	Solar radiation	Total for day	Per cent. of possible	Solar radiation	Total for day	Per cent. of possible	Solar radiation	Total for day	Per cent. of possible	Solar radiation	Total for day	Per cent. of possible	Solar radiation	Total for day	Per cent. of possible	Solar radiation
	hr.	%	J./cm.^{2}	hr.	%	J./cm.^{2}	hr.	%	J./cm.^{2}	hr.	%	J./cm.^{2}	hr.	%	J./cm.^{2}	hr.	%	J./cm.^{2}
1	1·2	7	60	10·9	71	1920	7·3	54	980	2·2	19	270	···	···	···	2·3	28	300
2	5·4	33	470	1·0	7	190	0·3	2	20	8·7	75	*2090*	···	···	···	···	···	30
3	6·8	41	1260	···	···	···	5·5	41	840	2·7	24	470	3·1	33	280	0·1	1	10
4	···	···	···	0·1	1	20	1·0	75	80	6·0	53	910	5·4	57	960	2·6	32	190
5	12·1	74	1750	0·7	5	70	2·7	20	360	*9·0*	80	1910	6·6	70	1100	0·1	1	···
6	5·9	36	740	···	···	···	7·4	56	1800	···	···	···	5·5	59	840	1·2	15	140
7	0·1	1	···	4·6	30	740	4·3	33	680	0·7	6	70	···	···	···	1·2	15	180
8	7·4	45	1080	1·1	7	130	6·9	52	1330	5·2	47	820	5·8	63	840	1·9	24	240
9	1·3	8	110	3·6	24	560	*10·0*	*77*	*2570*	4·8	43	800	0·3	3	60	0·9	11	100
10	0·6	4	60	0·5	3	40	3·1	24	600	5·7	52	1050	4·6	51	620	0·7	9	150
11	0·1	1	40	0·5	3	40	4·1	32	690	0·5	5	30	3·3	37	420	···	···	···
12	0·9	6	50	2·2	15	310	2·2	17	470	1·1	11	110	···	···	30	···	···	···
13	6·3	39	760	0·8	5	80	7·6	60	2050	0·2	2	10	2·1	23	270	···	···	···
14	2·5	15	110	6·0	41	1040	8·2	65	1690	1·0	9	110	···	···	30	0·8	10	70
15	···	···	···	6·0	41	720	3·8	30	670	0·2	2	30	0·4	5	40	4·0	51	640
16	1·3	8	180	10·0	69	*2440*	6·9	55	1050	0·2	2	20	0·4	5	10	4·9	63	820
17	1·8	11	380	4·8	34	950	7·2	58	1280	···	···	···	4·7	54	730	3·7	47	520
18	6·9	43	850	8·4	58	1560	4·3	35	730	5·5	52	690	0·1	1	10	0·4	5	80
19	10·2	64	2550	8·1	57	1160	4·8	39	930	8·4	*81*	1460	0·2	2	20	0·1	1	10
20	6·0	38	1180	2·3	16	240	7·9	64	1770	2·3	22	170	*7·0*	*82*	*1340*	···	···	···
21	7·6	58	1320	0·6	4	110	8·6	70	1630	0·2	2	20	5·4	63	800	···	···	···
22	10·3	65	1800	9·0	64	1240	4·6	38	830	0·8	8	70	···	···	···	···	···	···
23	7·5	47	1600	0·7	5	50	1·5	12	250	6·4	63	1190	···	···	10	2·1	27	310
24	2·3	45	310	10·1	72	1950	5·2	43	900	2·0	20	200	5·7	68	790	4·2	54	590
25	10·4	67	1950	5·7	41	1030	9·0	75	1910	0·1	1	···	5·1	61	840	0·4	5	240
26	12·9	82	*2920*	10·7	77	1860	8·5	71	1650	7·7	77	1430	4·2	50	710	···	···	···
27	*13·1*	*84*	2040	8·0	58	1290	0·3	3	10	5·1	51	540	···	···	···	···	···	···
28	11·9	76	1930	7·8	57	1350	6·0	51	1520	3·0	30	430	···	···	···	2·7	35	270
29	12·6	81	2420	*11·3*	*82*	2180	1·7	15	150	1·0	10	130	···	···	···	*5·3*	*68*	*870*
30	10·0	65	1370	9·5	70	1670	8·5	73	1480	···	···	···	···	···	···	0·4	5	50
31	9·1	59	1770	7·0	51	1690				1·6	17	260				5·0	64	50
Mean	5·96		1000	4·90		860	5·31		1030	2·98		490	2·33		360	1·46		220
							Annual Mean			4·37		780						

See Introduction for corrections to tabulated values of radiation.

DURATION OF BRIGHT SUNSHINE

Monthly and annual totals between exact hours, local apparent time

167 KEW OBSERVATORY: h_s(height of recorder above ground) = 13·3 m.

	Hour L.A.T. 3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total	Per cent. of possible
	hours																			%
Jan.	–	–	–	–	···	2·2	6·6	7·0	*7·8*	5·6	5·4	5·8	2·4	···	–	–	–	–	42·8	17
Feb.	–	–	–	···	···	4·5	6·9	*12·3*	10·3	10·6	11·3	9·5	7·6	0·6	···	–	–	–	73·6	26
Mar.	–	–	···	1·1	6·0	12·8	13·9	15·9	*17·1*	16·1	15·5	15·0	14·5	11·0	0·8	···	–	–	139·7	38
Apr.	–	···	1·1	11·8	19·1	23·2	*23·3*	22·2	21·0	20·3	17·1	17·6	17·2	16·4	11·3	3·1	···	–	224·7	54
May	···	0·9	10·6	18·0	17·4	17·4	16·8	18·0	17·0	17·6	18·2	*18·3*	17·6	17·6	16·9	13·2	1·7	···	237·2	50
June	···	2·8	9·2	13·7	12·5	11·3	11·0	12·2	11·4	12·1	15·3	14·5	14·9	*16·8*	11·8	7·6	2·0	···	179·1	36
July	···	1·2	6·0	12·0	13·6	14·6	15·4	*17·1*	16·4	17·0	15·1	14·8	12·6	10·0	10·7	6·9	1·1	···	184·5	37
Aug.	–	···	2·0	6·6	10·5	13·9	12·6	13·0	13·0	*14·6*	13·2	12·4	12·5	12·1	11·0	4·6	···	–	152·0	34
Sept.	–	–	0·3	3·6	9·8	15·3	14·5	15·7	*17·9*	17·2	16·4	15·8	16·5	12·1	4·3	···	–	–	159·4	42
Oct.	–	–	–	···	2·2	6·7	9·2	*12·6*	12·5	12·2	11·3	11·3	9·1	4·9	0·3	–	–	–	92·3	28
Nov.	–	–	–	–	0·1	4·6	7·6	10·3	12·0	*12·2*	10·3	9·4	3·4	···	–	–	–	–	69·9	26
Dec.	–	–	–	–	···	0·5	4·4	6·6	8·6	*10·9*	8·9	4·9	0·2	···	–	–	–	–	45·0	19
Annual	···	4·9	29·2	66·8	91·2	127·0	142·2	162·9	165·0	*166·4*	158·0	149·3	128·5	101·5	67·1	35·4	4·8	···	1600·2	37

SOLAR RADIATION RECEIVED ON A SURFACE PERPENDICULAR TO THE SOLAR BEAM

Monthly and annual totals between exact hours, local apparent time

168 KEW OBSERVATORY: h_s = 13·3 m.

	Hour L.A.T. 3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total
	joules per square centimetre																		
Jan.	–	–	–	–	···	290	900	1170	1430	920	770	740	290	···	–	–	–	–	6510
Feb.	–	–	–	···	40	530	1000	1980	1610	1720	1830	1400	1070	250	···	–	–	–	11430
Mar.	–	–	···	280	830	1540	2270	2980	3230	3380	3210	2750	2390	1590	350	···	–	–	24800
Apr.	–	···	260	1650	2750	4310	4790	4930	4330	4230	3580	3700	3500	3010	1870	600	···	–	43510
May	···	210	1440	2830	3440	3520	3960	4530	4190	4450	4400	4650	4070	3810	2920	1870	280	···	50570
June	···	420	1290	2220	2360	2120	1530	1960	1830	2060	2500	2630	2640	2670	1620	1000	270	···	29120
July	···	210	1010	1790	2330	2350	3010	3070	3010	3000	2660	2390	2090	1720	1340	900	180	···	31060
Aug.	–	···	390	950	1800	2360	2320	2270	2390	2940	2810	2140	2060	1910	1610	630	10	–	26590
Sept.	–	–	110	800	1920	2760	2870	3230	3660	3680	3310	2980	3210	1830	560	···	–	–	30920
Oct.	–	–	···	30	390	850	1420	2170	2280	2350	1960	1790	1340	670	40	–	–	–	15290
Nov.	–	–	–	···	30	560	1160	1580	1960	1850	1690	1320	570	30	–	–	–	–	10750
Dec.	–	–	–	–	···	130	590	950	1310	1690	1220	610	180	···	–	–	–	–	6680
Annual	···	840	4500	10550	15890	21320	25820	30820	31230	32270	29940	27100	23410	17490	10310	5000	740	···	287230

See Introduction for corrections to tabulated values.

Mean speed and highest instantaneous speed recorded each day (0h. to 24h., G.M.T.) by the pressure-tube anemograph

169 KEW OBSERVATORY: h_a(height of anemograph above M.S.L.) = height of ground above M.S.L. + height of anemograph above ground = 5 m. + 23 m.

	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust	Mean	Max. gust
	metres per second																							
1	5·9	15	6·5	19	2·4	8	*8·4*	23	3·1	14	5·2	16	4·1	15	2·2	8	4·1	14	2·5	10	3·5	12	1·7	7
2	6·4	17	*8·9*	21	2·6	7	7·4	19	3·7	14	7·0	21	1·7	8	2·3	8	5·5	19	3·5	10	2·5	9	5·7	17
3	6·6	20	6·1	20	1·6	7	5·7	16	2·3	12	7·2	*24*	2·0	9	3·0	8	5·4	17	2·2	9	5·4	16	5·4	19
4	8·5	22	4·6	20	4·5	9	5·4	24	6·0	19	6·1	16	5·3	16	1·7	6	1·9	10	2·2	9	5·9	*18*	2·7	14
5	6·6	19	4·9	16	2·8	6	3·1	21	3·3	10	6·4	17	5·4	18	2·6	8	2·2	9	2·0	10	4·8	15	4·8	17
6	3·4	11	5·5	*29*	1·2	4	3·8	13	1·7	8	*7·6*	22	2·1	9	2·0	11	2·7	11	1·3	6	2·6	12	6·2	20
7	5·3	20	6·2	18	4·5	13	5·1	17	1·5	8	5·1	17	2·7	17	4·5	17	5·2	17	2·8	8	*6·6*	16	*8·5*	23
8	5·3	19	6·1	16	4·7	11	7·3	*30*	4·1	11	1·7	12	5·3	17	5·6	18	4·5	14	2·1	8	4·8	15	5·0	16
9	3·9	21	5·6	19	2·3	8	4·0	14	3·8	11	5·1	12	4·3	15	2·3	8	2·5	12	1·3	8	1·5	7	8·4	*28*
10	4·4	18	4·9	18	2·0	9	2·6	11	2·9	8	4·5	12	3·4	13	2·3	10	2·9	11	1·6	9	1·0	6	6·6	17
11	6·7	18	3·9	13	*0·8*	5	3·9	12	1·1	11	2·6	9	3·5	14	3·0	12	3·0	12	2·8	14	0·6	4	5·8	15
12	6·1	18	3·5	15	1·1	7	1·3	7	1·2	6	2·5	7	3·9	12	5·1	19	4·9	16	3·1	19	0·7	5	3·5	17
13	*8·9*	24	3·2	12	1·7	8	*1·2*	7	1·1	6	1·9	7	3·0	13	4·6	*19*	5·0	16	3·7	13	1·4	9	5·7	18
14	4·8	16	3·3	13	3·2	11	1·9	9	2·2	10	1·9	10	2·0	10	2·2	9	2·6	11	3·4	15	2·9	10	7·6	19
15	3·0	10	2·6	9	5·2	16	3·5	11	5·9	15	6·0	17	1·9	8	5·2	15	5·3	19	3·3	14	4·2	13	4·3	15
16	3·2	11	5·2	14	4·9	14	6·1	16	*6·8*	17	5·0	16	1·9	10	4·8	15	2·2	9	2·8	15	2·8	9	3·2	13
17	5·6	*25*	5·7	16	5·1	21	3·7	12	6·0	15	5·4	17	2·4	13	2·9	13	3·2	13	*5·8*	*31*	2·4	11	2·6	9
18	5·3	15	6·4	15	4·1	15	2·0	10	6·4	17	6·1	19	4·2	12	2·4	9	2·4	8	4·0	18	4·8	16	3·2	9
19	2·7	11	7·2	18	5·9	16	2·3	9	5·1	14	3·3	11	5·6	15	1·9	11	3·7	13	2·3	10	5·2	17	5·7	18
20	2·9	12	8·2	20	5·2	14	1·5	8	6·2	14	3·3	13	4·6	13	2·4	12	3·3	13	3·8	12	3·8	12	6·6	18
21	*2·1*	7	6·5	19	4·9	14	4·1	12	5·1	14	5·1	19	*6·6*	22	4·3	18	2·6	10	3·8	11	1·4	9	5·2	14
22	3·3	13	6·3	19	3·3	12	4·8	17	3·1	13	4·5	18	4·3	15	3·5	13	1·8	11	4·4	15	1·5	6	5·3	13
23	7·1	19	5·9	14	1·6	8	3·4	11	2·8	11	2·6	11	2·6	11	5·7	17	2·1	9	2·8	10	1·7	5	4·7	15
24	3·9	11	4·7	13	2·5	10	3·2	11	2·7	11	*1·4*	8	1·7	9	3·8	12	2·5	10	4·3	12	2·6	9	4·7	14
25	4·1	14	6·2	15	4·6	11	6·4	17	3·6	12	1·7	8	2·1	11	*7·8*	19	2·3	11	4·3	17	1·9	6	2·0	9
26	6·1	16	7·5	18	5·5	12	3·8	13	3·7	15	3·2	13	*1·6*	9	4·3	14	2·9	15	2·6	12	1·1	6	*0·7*	6
27	4·0	14	2·1	7	*7·8*	20	2·2	10	1·7	8	4·9	15	2·9	11	2·8	11	6·5	*21*	1·5	7	0·9	5	2·4	8
28	3·3	14	0·9	4	3·0	8	5·4	19	*1·0*	7	5·2	18	3·0	10	2·2	8	*6·6*	16	4·6	18	*0·3*	3	4·0	17
29	5·4	19	*0·6*	3	4·6	15	2·1	10	3·4	13	3·5	14	3·0	9	*1·1*	7	3·5	13	4·2	11	1·0	5	4·7	14
30	7·7	21			4·3	18	1·6	8	2·7	16	4·3	15	1·8	*25*	1·5	9	*1·6*	7	1·2	6	0·6	4	8·4	24
31	6·6	18			7·1	*26*			6·2	*20*			4·3	14	3·4	13			*0·9*	4			5·1	17

WIND

Monthly and annual means of mean wind speed between exact hours, G.M.T.

170 KEW OBSERVATORY: h_a = 5 m. + 23 m.

	Hour G.M.T. 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
	metres per second																								
Jan.	4·6	4·7	4·5	*4·5*	4·6	4·5	4·5	4·6	4·6	4·9	5·5	5·9	*6·2*	6·0	5·7	5·6	5·4	5·1	5·3	5·4	5·5	5·3	5·1	5·0	5·1
Feb.	4·3	4·3	4·4	*4·2*	4·4	4·5	4·5	4·6	4·9	5·2	6·1	6·1	6·4	6·4	*6·5*	6·3	5·9	5·5	5·4	5·1	5·1	4·7	4·4	4·3	5·1
Mar.	3·2	3·3	3·2	2·9	3·0	2·9	2·9	3·1	3·3	3·9	4·2	4·6	4·6	4·5	*4·7*	4·6	4·6	4·2	3·9	3·6	3·5	3·3	3·5	3·6	3·7
Apr.	2·8	2·7	2·6	*2·5*	2·6	2·7	2·9	3·6	4·5	4·9	5·1	5·5	*5·6*	5·6	5·4	5·3	5·1	4·6	4·2	3·5	3·4	3·1	3·1	2·6	3·9
May	2·4	2·3	*2·3*	2·6	2·5	2·5	2·8	3·1	3·8	4·0	4·3	4·6	4·5	4·6	4·8	*5·0*	4·9	4·6	4·4	3·8	3·4	2·9	2·7	2·7	3·6
June	3·3	3·1	3·0	*3·0*	3·1	3·4	3·9	4·3	4·5	4·9	5·2	5·5	5·5	5·5	*5·7*	5·7	5·5	5·2	4·8	4·3	3·7	3·7	3·7	3·5	4·3
July	2·2	2·2	2·1	2·2	*2·1*	2·3	2·8	3·2	3·7	4·2	4·5	4·5	4·5	4·7	*4·7*	4·6	4·5	4·3	3·8	3·3	2·7	2·4	2·2	2·1	3·3
Aug.	2·5	2·6	2·4	2·4	*2·4*	2·4	2·7	2·9	3·3	3·8	4·0	4·1	4·2	4·4	4·5	*4·6*	4·4	4·2	3·8	3·3	3·1	2·8	2·7	2·7	3·3
Sept.	*2·3*	2·5	2·5	2·5	2·6	2·4	2·6	3·1	3·7	4·2	4·6	4·9	*5·1*	4·9	5·0	4·9	4·5	4·0	3·3	3·3	3·2	3·0	2·7	2·6	3·5
Oct.	2·3	2·2	2·4	2·4	2·3	2·3	2·3	2·5	2·6	3·0	3·7	3·9	4·1	*4·3*	4·2	3·8	3·3	3·0	2·8	2·7	2·6	2·6	2·6	2·5	2·9
Nov.	2·7	2·7	2·7	2·7	2·6	2·4	2·5	2·4	2·5	2·6	2·9	3·1	*3·2*	3·1	3·0	3·0	2·7	2·6	2·4	2·6	2·6	*2·3*	2·5	2·4	2·7
Dec.	4·3	4·3	*4·0*	4·2	4·3	4·3	4·3	4·4	4·6	5·0	5·3	5·4	5·7	*5·8*	5·4	5·2	4·8	4·9	5·2	5·3	5·1	5·0	4·8	4·7	4·9
Annual	3·1	3·1	*3·0*	3·0	3·0	3·0	3·0	3·2	3·5	4·2	4·6	4·8	5·0	*5·0*	5·0	4·9	4·6	4·4	4·1	3·8	3·6	3·4	3·3	3·2	3·9

DISTRIBUTION OF WIND SPEED, EXTREME VELOCITIES AS RECORDED BY PRESSURE-TUBE ANEMOGRAPH

171 KEW OBSERVATORY: h_a = 5 m. + 23 m.

	DISTRIBUTION OF WIND SPEED								EXTREME VELOCITIES				
	More than 17·1 m./sec.		10·8 to 17·1 m./sec.		5·5 to 10·7 m./sec.	1·6 to 5·4 m./sec.	Less than 1·6 m./sec.	No record	Highest hourly wind			Highest gust	
	Dates of occurrence	Duration	No. of days	Duration	Duration	Duration	Duration	Duration	Veer from N.	Speed	Hour ended	Speed	Date
		hr.		hr.	hr.	hr.	hr.	hr.	°	m./sec.	day h.	m./sec.	day h. m.
Jan.	–	0	3	4	320	362	58	0	205	11	4 20	25	17 21 45
Feb.	–	0	2	5	319	302	70	0	220	11	2 5	29	6 12 40
Mar.	–	0	2	11	156	413	164	0	195	13	31 17	26	31 16 55
Apr.	–	0	2	2	184	372	162	0	230	13	4 12	30	8 14 15
May	–	0	0	0	148	403	193	0	70	10	18 16	20	31 14 55
June	–	0	1	3	217	419	81	0	220	11	6 22	24	3 13 50
July	–	0	1	1	90	494	153	0	230	12	21 12	25	30 16 25
Aug.	–	0	0	0	126	475	143	0	220	10	25 10	19	13 16 50
Sept.	–	0	0	0	138	444	138	0	220	10	27 12	21	27 15 5
Oct.	–	0	0	0	59	493	192	0	85	9	28 15	31	17 23 50
Nov.	–	0	0	0	97	356	267	0	85	9	7 7	18	4 4 10
Dec.	–	0	1	9	299	369	67	0	200	14	9 9	28	9 8 55
Year	–	0	12	35	2153	4902	1688	0	200	14	Dec. 9 9	31	Oct. 17 23 50

TEMPERATURE IN THE GROUND AT DEPTHS OF 30 CM.(1ft.) AND 122 CM.(4ft.) AT 9h., G.M.T.

172 KEW OBSERVATORY

	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.	30 cm.	122 cm.
	degrees Absolute																							
1	77·3	81·3	79·1	80·1	76·8	79·3	81·2	81·7	85·0	83·6	86·0	85·3	88·4	87·4	93·4	89·0	90·0	88·6	87·5	87·7	80·6	84·9	78·3	82·5
2	79·0	81·2	79·9	80·1	77·1	79·2	81·0	81·7	84·1	83·6	86·3	85·3	88·3	87·6	93·5	89·0	89·4	88·7	87·7	87·7	81·9	84·6	78·2	82·3
3	80·3	81·0	80·5	80·1	77·2	79·4	80·6	81·7	83·2	83·7	86·0	85·3	89·0	87·5	92·2	89·2	89·3	88·7	87·9	87·8	83·3	84·6	80·0	82·2
4	81·2	81·1	79·3	80·3	77·5	79·3	80·7	81·6	83·6	83·7	86·2	85·3	89·6	87·3	91·3	89·3	89·1	88·7	87·5	87·7	83·5	84·6	80·9	82·1
5	81·5	81·1	78·9	80·3	77·3	79·3	80·3	81·6	84·0	83·7	87·0	85·4	88·4	87·3	91·3	89·3	89·0	88·7	85·8	87·7	83·1	84·5	79·4	82·1
6	79·7	81·2	79·2	80·4	77·4	79·3	80·2	81·6	84·4	83·7	86·9	85·2	88·6	87·4	91·3	89·2	89·2	88·5	85·3	87·9	81·5	84·7	80·0	82·1
7	80·0	81·3	78·8	80·4	77·9	79·3	80·8	81·6	85·0	83·6	87·0	85·4	89·3	87·3	91·1	89·3	88·8	88·4	85·4	87·6	81·6	84·5	81·2	82·1
8	79·7	81·2	80·0	80·4	79·4	79·4	82·0	81·6	85·3	83·8	87·8	85·4	89·1	87·4	90·9	89·2	89·4	88·5	84·5	87·4	81·1	84·6	81·7	82·1
9	78·6	81·3	80·3	80·5	80·4	79·6	81·4	81·6	85·9	83·9	88·9	85·6	88·5	87·4	90·7	89·1	89·8	88·5	84·2	87·1	79·9	84·2	81·8	82·3
10	79·0	81·3	79·7	80·4	80·7	79·6	81·0	81·7	86·1	83·8	88·7	85·7	87·9	87·3	91·0	89·1	90·3	88·5	84·2	87·1	79·6	84·2	81·5	82·3
11	79·4	81·2	79·8	80·4	80·2	79·9	81·8	81·8	86·7	84·0	88·6	85·9	87·4	87·3	90·6	89·1	90·2	88·5	84·8	86·9	79·6	84·1	81·4	82·3
12	79·9	81·2	80·0	80·6	80·0	80·1	81·5	81·8	86·7	84·1	89·0	86·0	87·5	87·2	90·3	89·1	89·0	88·5	85·7	86·7	80·0	83·9	81·9	82·4
13	80·7	81·1	79·5	80·5	80·2	80·1	82·4	81·9	86·0	84·1	89·2	86·1	87·5	87·2	89·2	89·1	88·8	88·7	85·7	86·8	80·2	83·7	81·1	82·4
14	81·0	81·2	80·3	80·6	80·6	80·3	82·6	81·9	86·9	84·2	90·6	86·1	88·3	87·2	88·8	89·1	88·6	88·8	85·6	86·7	80·9	83·6	82·1	82·6
15	79·7	81·3	80·9	80·8	80·6	80·4	82·4	82·0	87·9	84·4	90·9	86·2	88·7	87·1	90·0	89·1	88·8	88·6	84·4	86·6	82·2	83·4	82·0	82·5
16	78·9	81·3	80·5	80·8	81·4	80·5	82·6	82·1	88·0	84·6	90·3	86·4	88·4	87·1	89·7	88·9	88·0	88·4	84·8	86·6	81·9	83·3	80·4	82·6
17	78·2	81·3	79·3	80·9	81·6	80·7	82·7	82·1	88·6	84·8	89·6	86·6	88·2	87·1	90·0	88·9	87·6	88·3	85·3	86·5	82·2	83·7	79·7	82·6
18	78·6	81·3	78·0	80·8	81·9	80·8	82·3	82·1	89·0	84·9	89·2	87·1	89·0	87·1	89·1	88·7	87·9	88·3	85·0	86·2	82·6	83·4	80·2	82·5
19	77·9	81·2	77·4	81·0	81·3	80·8	83·3	82·1	89·0	85·1	88·9	86·7	90·4	87·2	89·6	88·9	88·3	88·2	83·8	86·3	83·5	83·7	79·0	82·5
20	76·8	81·1	76·7	80·7	81·7	80·9	84·3	82·2	88·6	85·1	89·0	86·9	91·1	87·3	89·2	88·7	88·7	88·1	83·1	86·3	83·2	83·8	79·2	82·3
21	76·6	81·0	75·8	80·6	81·9	81·1	84·9	82·3	88·5	85·3	89·0	87·0	91·2	87·5	89·0	88·7	87·5	88·2	84·0	86·2	82·0	83·7	78·9	82·2
22	76·9	80·8	75·6	80·3	82·0	81·2	85·3	82·5	88·1	85·4	88·6	87·0	90·3	87·6	89·5	88·8	86·1	88·1	85·1	86·1	81·7	83·9	79·0	82·1
23	76·6	80·6	75·6	80·2	81·3	81·2	84·5	82·7	88·0	85·4	88·4	87·0	90·1	87·8	89·4	88·6	86·2	88·0	84·8	86·0	81·2	83·8	78·0	82·1
24	77·0	80·3	75·7	80·0	81·0	81·6	84·6	82·9	86·2	85·5	89·0	87·0	89·8	87·9	89·0	88·7	86·9	88·0	84·3	86·0	80·3	83·6	77·9	81·9
25	77·3	80·2	75·6	79·9	80·9	81·3	84·8	83·0	86·3	85·6	89·9	87·0	90·3	87·9	90·5	88·7	86·8	88·0	84·8	86·0	79·0	83·6	77·5	81·7
26	77·7	80·1	75·4	79·8	81·0	81·3	84·9	83·1	86·2	85·5	90·9	87·1	91·3	88·0	90·0	89·0	87·6	87·9	83·5	85·9	78·1	83·4	76·3	81·6
27	77·5	80·1	75·5	79·6	81·2	81·3	85·0	83·1	85·8	85·6	91·1	87·1	92·1	88·0	89·3	88·6	88·0	87·7	81·5	85·8	78·8	83·1	75·9	81·3
28	77·8	80·1	75·9	79·5	81·0	81·3	85·9	83·2	86·2	85·4	90·2	87·2	93·2	88·1	89·1	88·6	88·6	87·7	80·7	85·7	78·4	83·0	76·0	81·2
29	77·8	80·1	76·3	79·3	81·7	81·3	85·2	83·3	85·6	85·4	89·2	87·4	94·3	88·3	89·1	88·8	88·3	87·7	81·1	85·5	78·3	82·8	77·0	81·2
30	78·3	80·1			82·0	81·4	85·3	83·6	84·9	85·3	88·6	87·5	94·0	88·4	89·6	88·6	87·4	87·7	81·1	85·1	78·2	82·6	76·8	81·0
31	79·1	80·1			81·7	81·6			85·9	85·3			93·3	88·8	89·8	88·8			80·2	85·1			77·6	79·9
Mean	78·7	80·9	78·3	80·3	80·2	80·4	82·9	82·2	86·3	84·6	88·7	86·3	89·8	87·5	90·2	88·9	88·5	88·3	84·5	86·6	80·9	83·9	79·4	82·0
											Year		84·1	84·3										

MINIMUM TEMPERATURE "ON THE GRASS" DURING THE INTERVAL 18h. TO 7h., G.M.T.

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	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
						degrees	*Absolute*					
1	73·6	76·1	68·3	76·9	73·8	76·9	83·3	85·9	82·3	79·2	70·6	74·2
2	80·8	81·1	75·2	75·9	75·8	82·4	76·4	83·7	80·9	79·8	82·5	70·7
3	82·0	80·4	75·1	74·2	*67·6*	77·7	76·1	87·4	84·1	76·7	84·2	83·3
4	83·8	74·1	75·0	71·4	73·2	81·3	82·5	86·4	83·6	79·6	81·4	79·1
5	78·6	74·4	70·3	70·8	80·0	82·6	82·8	84·3	83·1	69·7	78·5	69·1
6	67·3	75·9	74·8	72·5	69·9	*76·1*	78·6	86·4	80·8	69·8	68·8	79·5
7	80·3	74·0	71·7	74·7	71·9	79·9	81·2	87·0	76·3	77·1	78·1	83·4
8	74·2	82·6	81·8	78·4	71·7	79·1	80·8	86·6	85·8	69·9	74·6	79·7
9	68·6	78·0	79·4	76·3	77·5	79·1	82·2	86·8	81·4	70·9	*66·2*	80·7
10	74·6	69·7	72·2	68·3	78·0	83·4	83·4	82·3	81·3	72·4	67·8	80·2
11	79·2	73·6	70·5	73·3	84·3	82·9	76·5	85·3	85·2	75·3	70·5	76·9
12	77·6	76·2	69·0	*66·8*	78·1	84·6	82·6	84·7	73·6	84·1	74·9	80·8
13	83·9	75·1	70·4	71·1	73·2	84·1	83·3	80·8	79·2	74·0	74·1	73·4
14	78·4	79·1	71·8	71·4	74·1	84·7	81·2	80·7	87·0	82·5	75·2	83·7
15	72·9	77·5	74·2	69·3	79·2	81·3	85·3	84·2	78·6	71·3	82·7	75·8
16	68·6	75·6	80·8	74·1	80·9	84·1	84·1	83·0	81·3	76·8	79·1	72·2
17	67·1	73·0	77·4	79·2	80·9	83·5	*75·1*	80·8	73·9	81·8	72·7	70·7
18	73·5	*66·3*	77·6	70·9	82·3	80·4	86·9	79·1	80·8	78·1	81·8	72·6
19	68·1	71·9	70·2	72·8	80·5	80·8	88·0	79·5	80·6	70·3	84·1	71·9
20	*64·2*	*66·3*	80·7	77·5	79·3	82·9	88·5	76·3	79·8	74·7	76·9	75·7
21	72·3	66·8	78·6	74·0	82·8	78·7	87·9	76·8	71·1	81·8	71·6	76·4
22	71·4	66·6	79·0	84·1	71·4	82·0	81·3	84·3	*70·1*	84·5	71·4	75·8
23	68·6	71·9	68·2	70·9	80·2	79·7	79·6	82·4	79·1	74·0	75·8	66·7
24	74·7	70·7	*66·3*	70·3	76·9	76·9	83·5	78·4	77·1	79·4	69·6	73·6
25	67·2	70·1	68·6	76·6	70·9	79·2	82·7	89·2	74·2	82·0	*66·2*	67·7
26	77·0	70·9	74·7	78·4	80·7	85·9	83·6	83·3	77·8	72·4	*66·2*	63·6
27	71·3	70·9	77·5	72·4	69·3	85·4	82·3	*75·2*	81·3	*85·9*	68·9	*62·4*
28	69·7	68·4	72·1	77·8	71·4	81·9	89·8	81·6	89·6	69·2	75·0	71·9
29	71·3	68·4	72·4	78·5	73·1	78·8	91·2	75·6	84·3	78·3	72·1	74·0
30	76·9		79·6	75·6	72·1	81·1	85·7	77·4	74·2	77·3	73·2	72·5
31	78·3		66·9		81·9		89·1	76·3		69·1		72·3
Mean	74·1	73·3	73·9	74·1	76·2	81·3	83·1	82·3	79·9	75·7	74·5	74·5
						Year	76·9					

The initial 2 or 3 of the readings is omitted, i.e. 275·0 degrees is printed 75·0.

The minimum "on the grass" refers to the interval from 18h. on the previous day to 7h. on the day to which it is entered.

Add 0·16° to obtain temperature in degrees Kelvin where $T(°K.) = t(°C.) + 273·16$.

ELECTRICAL OBSERVATIONS, UNDERGROUND LABORATORY, WILSON METHOD

Mean value for periods of twenty minutes about 14h. 30m.

F = Potential gradient, unit 1 v./cm. $\lambda+$ = Conductivity due to positive ions, unit 10^{-15} ohm.$^{-1}$ cm.$^{-1}$
i = Air-earth current, unit 10^{-15} amp. cm.$^{-2}$

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	JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE		
	F	$\lambda+$	i	F	$\lambda+$	i	F	$\lambda+$	i	F	$\lambda+$	i	F	$\lambda+$	i	F	$\lambda+$	i
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2·32	75	174
3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2·27	33	75
5	2·83	36	96	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	...	...	...	3·66	14	50	...	...	...	...	...	...	1·44	81	117	...	...	...
7	...	...	...	...	...	...	...	...	...	2·54	28	71	3·21	31	100	2·20	67	146
8	...	...	...	...	...	...	1·70	31	52	...	...	...	...	...	...	...	...	...
9	...	...	...	2·44	22	54	2·68	29	78	2·27	51	117	...	...	...	...	...	...
10	...	...	...	...	...	...	3·46	36	125	...	...	...	2·29	47	108	...	...	...
11	...	...	...	2·97	–	–	3·36	29	97	...	...	...	...	...	...	2·90	57	166
12	...	...	...	2·50	35	88	3·48	44	153	2·17	52	113	...	...	...	...	...	...
13	2·43	10	24	...	...	...	...	...	...	1·70	63	108	1·90	58	110	...	...	...
14	6·46	23	69	1·71	–	–	...	...	...	...	...	...	...	...	...	...	...	...
15	5·36	60	110	...	...	...	...	...	...	3·58	45	161	...	...	...	...	...	...
16	...	...	...	4·68	16	76	1·68	48	80	4·39	58	256	...	...	...	1·65	93	153
17	...	...	...	4·99	39	194	...	...	...	...	...	...	...	...	...	2·09	63	132
18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19	...	...	...	4·25	22	93	...	...	...	...	...	...	...	...	...	...	...	...
20	...	...	...	...	...	...	...	...	...	1·79	94	169	2·18	77	169	...	...	...
21	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22	5·27	42	74	...	...	...	2·22	59	132	2·11	78	165	...	...	...	1·75	67	118
23	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1·48	84	124
24	...	...	...	5·38	10	52	...	...	...	...	...	...	1·61	53	86	...	...	...
25	...	...	...	5·57	19	107	6·70	45	304	...	...	...	...	...	...	1·11	107	119
26	2·64	30	79	6·12	22	134	...	...	...	2·75	56	155	...	...	...	...	...	...
27	3·41	17	58	4·48	21	93	...	...	...	...	...	...	1·60	57	90	...	...	...
28	...	...	...	...	...	...	...	...	...	1·55	126	196	1·56	43	67	...	...	...
29	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
30	2·80	18	51				...	...	...	...	...	...	...	...	...	2·32	67	156
31	...	...	...				...	...	...				...	...	...			
Mean	3·90	29	70	4·06	22	94	3·16	40	128	2·49	65	151	1·97	56	106	2·01	71	136
No. of days used	8	8	8	12	10	10	8	8	8	10	10	10	8	8	8	10	10	10

	JULY			AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER		
	F	$\lambda+$	i	F	$\lambda+$	i	F	$\lambda+$	i	F	$\lambda+$	i	F	$\lambda+$	i	F	$\lambda+$	i
1	...	...	...	...	...	...	1·78	73	131	...	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	...	...	...	...	...	...	...	...	...	...	...	...	2·56	18	47	...	...	...
4	...	...	...	1·62	49	80	...	...	...	...	...	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	3·17	14	43	...	...	...
6	1·56	68	107	...	...	...	...	...	...	...	...	...	...	...	...	4·02	17	69
7	2·36	64	153	...	...	...	1·27	73	93	4·83	16	78	...	...	...	2·72	42	115
8	...	...	...	...	...	...	2·21	62	138	...	...	...	...	...	...	...	...	...
9	...	...	...	...	...	...	1·86	85	159	...	...	...	...	...	...	...	...	...
10	...	...	...	2·14	53	113	...	...	...	...	...	...	...	...	...	...	...	...
11	...	...	...	...	...	...	...	...	...	...	...	...	5·54	9	48	...	...	...
12	...	...	...	2·22	80	178	...	...	...	...	...	...	...	...	...	...	...	...
13	...	...	...	...	...	...	2·33	56	130	3·93	–	–	...	...	...	...	...	...
14	...	...	...	...	...	...	2·25	56	126	...	...	...	...	...	...	...	...	...
15	...	...	...	...	...	...	2·52	79	201	...	...	...	...	...	...	...	...	...
16	2·19	70	154	...	...	...	...	...	...	...	...	...	...	...	...	6·02	9	53
17	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18	...	...	...	1·38	101	141	...	...	...	...	...	...	4·43	11	48	...	...	...
19	2·00	73	147	1·29	77	99	...	...	...	3·76	17	64	...	...	...	...	...	...
20	...	...	...	2·29	57	134	...	...	...	...	...	...	...	...	...	...	...	...
21	1·94	49	95	...	...	...	2·20	71	156	3·56	22	80	...	...	...	...	...	...
22	...	...	...	...	...	...	1·83	55	101	3·98	19	77	...	...	...	5·81	18	103
23	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
24	...	...	...	1·85	81	150	...	...	...	...	...	...	2·86	20	57	6·49	19	126
25	...	...	...	1·99	64	127	...	...	...	...	...	...	9·57	23	220	...	...	...
26	...	...	...	...	...	...	...	...	...	3·22	47	151	...	...	...	...	...	...
27	...	...	...	...	...	...	...	...	...	5·60	11	60	...	...	...	...	...	...
28	2·18	63	138	...	...	...	2·09	70	147	...	...	...	...	...	...	...	...	...
29	2·29	60	139	...	...	...	...	...	...	5·92	15	87	...	...	...	5·12	17	87
30	...	...	...	2·08	71	147	...	...	...	...	...	...	...	...	...	...	...	...
31	...	...	...	2·84	51	145				...	...	...				6·11	11	64
Mean	2·07	64	133	1·97	68	131	2·03	68	138	4·35	21	85	4·69	16	77	5·18	19	88
No. of days used	7	7	7	10	10	10	10	10	10	8	7	7	6	6	6	7	7	7

Year:				
	Mean	3·07	47	114
	No. of days used	104	101	101

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	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE	
	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient
		hr.		hr.		hr.		hr.		hr.		hr.
1	2	3·0	0	···	1	0·1	1	1·1	1	2·1	1	1·5
2	1	0·1	1	1·8	0	···	2	4·1	2	3·8	1	1·8
3	0	···	2	7·6	0	···	1	0·8	0	···	2	4·7
4	1	2·0	0	···	0	···	2	4·7	2	3·7	1	1·0
5	1	0·4	2	3·9	0	···	1	0·2	0	···	1	0·1
6	2	7·1	1	0·6	0	···	1	0·1	0	···	1	0·3
7	2	4·9	1	0·9	0	···	1	0·3	0	···	1	0·2
8	1	1·0	0	···	0	···	1	1·7	1	0·3	0	···
9	2	3·8	0	···	0	···	0	···	0	···	0	···
10	2	6·6	1	0·1	0	···	0	···	1	1·8	1	2·9
11	2	7·6	0	···	1	0·2	0	···	2	3·8	0	···
12	1	0·9	1	0·2	0	···	0	···	0	···	1	0·5
13	1	1·7	1	0·8	1	0·4	0	···	0	···	1	1·3
14	1	0·1	0	···	0	···	1	0·1	0	···	1	0·1
15	0	···	0	···	0	···	0	···	0	···	0	···
16	1	2·0	1	0·2	0	···	1	0·2	0	···	1	0·9
17	2	5·6	0	···	1	1·7	1	2·0	0	···	2	5·3
18	0	···	0	···	1	2·2	0	···	0	···	1	0·9
19	0	···	1	0·3	1	1·0	1	0·4	0	···	1	2·6
20	1	2·2	1	1·3	0	···	1	1·4	1	0·1	0	···
21	2	3·3	2	3·2	0	···	1	0·3	0	···	1	0·2
22	0	···	2	4·4	1	0·2	0	···	0	···	1	2·8
23	2	3·0	1	0·4	1	0·5	0	···	2	7·7	0	···
24	2	6·9	0	···	0	···	0	···	2	6·4	0	···
25	1	0·5	0	···	0	···	0	···	2	3·2	0	···
26	2	3·6	0	···	0	···	1	0·1	1	2·5	0	···
27	2	3·0	1	0·9	0	···	0	···	0	···	1	0·2
28	2	3·0	0	···	0	···	1	1·7	0	···	2	3·0
29	2	5·2	1	0·2	1	1·9	2	3·8	2	6·9	1	0·7
30	1	1·8			1	2·9	1	2·4	1	0·3	0	···
31	1	0·7			2	7·2			2	4·2		
Total	–	80·0	–	26·8	–	18·3	–	25·4	–	46·8	–	31·0
No. of days used	–	31	–	29	–	31	–	30	–	31	–	30
Mean	–	2·6	–	0·9	–	0·6	–	0·8	–	1·5	–	1·3

	JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient	Character	Duration of negative potential gradient
		hr.		hr.		hr.		hr.		hr.		hr.
1	1	0·9	0	···	0	···	0	···	1	2·0	1	0·6
2	0	···	2	4·9	1	2·5	0	···	0	···	1	1·3
3	0	···	1	0·9	1	2·0	1	2·0	0	···	1	1·3
4	2	4·9	0	···	1	1·3	1	0·2	1	2·0	1	0·5
5	1	1·1	1	0·7	0	···	0	···	0	···	1	0·4
6	0	···	2	3·5	1	0·1	0	···	0	···	2	3·0
7	1	0·1	1	1·0	0	···	0	···	2	11·2	1	2·7
8	1	0·2	2	4·0	0	···	0	···	0	···	2	3·7
9	1	0·5	0	···	0	···	0	···	0	···	2	6·0
10	1	0·2	0	···	1	0·9	0	···	0	···	2	5·2
11	0	···	1	0·8	1	0·4	0	···	1	0·3	1	0·5
12	1	1·4	1	0·2	2	4·4	1	1·5	0	···	1	1·0
13	1	1·0	1	1·5	0	···	0	···	0	···	1	0·6
14	1	0·2	0	···	0	···	0	···	0	···	1	1·2
15	1	0·1	0	···	1	0·5	1	1·1	2	3·9	1	0·3
16	0	···	0	···	0	···	1	2·2	1	2·0	0	···
17	1	1·1	1	1·0	0	···	1	0·9	0	···	1	2·6
18	1	0·1	0	···	0	···	1	2·0	0	···	1	0·1
19	0	···	0	···	0	···	0	···	1	0·1	0	···
20	0	···	0	···	1	0·2	0	···	0	···	0	···
21	0	···	1	0·6	0	···	0	···	1	0·4	1	1·3
22	1	0·6	0	···	1	0·2	0	···	1	0·2	1	0·7
23	0	···	0	···	0	···	0	···	1	1·0	0	···
24	2	3·9	0	···	0	···	0	···	1	0·1	0	···
25	0	···	0	···	0	···	1	1·7	0	···	0	···
26	0	···	0	···	1	0·1	1	0·6	1	0·3	0	···
27	0	···	0	···	0	···	0	···	0	···	1	0·2
28	0	···	0	···	1	0·2	0	···	1	0·1	1	2·3
29	0	···	0	···	0	···	0	···	0	···	1	0·2
30	1	0·2	0	···	0	···	1	1·0	1	1·6	2	6·7
31	0	···	1	0·1			1	0·1			2	8·8
Total	–	16·5	–	19·2	–	12·8	–	13·3	–	25·2	–	51·2
No. of days used	–	31	–	31	–	30	–	31	–	30	–	31
Mean	–	0·5	–	0·6	–	0·4	–	0·4	–	0·8	–	1·7

Annual values: Character 0 1 2
No. of days used 172 147 47

Duration: Total 366·5
No. of days 366
Mean 1·0 hr.

POTENTIAL GRADIENT (reduced to level surface, paddock site)
Kelvin electrograph standardized by Wilson readings, underground laboratory
Mean values for periods of sixty minutes between exact hours, G.M.T.

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	JANUARY, factor 4·12				FEBRUARY, factor 4·00				MARCH, factor 4·07			
	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
	volts per metre											
1	-715	195	75	270	180	480	265	325	425	230	405	290
2	295	360	345	195	120	205	385	265	340	365	490	400
3	195	395	100	210	95	370	-1415	685	695	465	535	535
4	35	135	150	25	240	410	350	610	400	425	635	575
5	10	210	320	790	205	600	300	155	450	550	635	490
6	580	495	-990	-25	205	215	550	540	355	660	645	525
7	35	380	310	125	205	155	385	205	135	355	330	220
8	175	260	370	740	145	170	180	95	110	145	230	365
9	665	595	85	85	170	360	275	395	245	525	245	755
10	175	505	345	-545	180	35	275	265	465	510	340	450
11	50	50	-35	320	110	445	325	265	380	490	380	160
12	270	320	395	75	25	290	250	490	230	330	330	380
13	60	125	125	320	325	205	290	505	195	135	380	195
14	175	395	545	640	325	385	300	290	185	315	245	290
15	370	545	580	480	290	350	325	230	170	145	170	75
16	285	50	125	330	120	410	325	575	75	270	145	290
17	445	285	125	-35	215	470	470	455	-25	415	290	60
18	380	370	395	740	335	290	480	575	35	315	255	645
19	370	840	570	480	325	480	360	385	230	-10	205	535
20	580	520	-50	790	215	505	455	120	160	315	255	415
21	10	455	555	-175	10	-480	335	Z±	145	280	270	415
22	445	875	495	850	395	-205	180	240	25	340	230	315
23	505	495	370	245	50	350	325	815	365	500	255	25
24	220	630	-50	100	550	700	550	660	205	330	315	145
25	220	545	360	100	515	700	540	650	280	440	610	645
26	220	175	-25	715	335	480	625	350	315	230	355	610
27	310	530	345	-405	Z-	515	430	540	315	490	475	340
28	705	715	420	-285	550	590	430	490	305	290	220	365
29	445	345	35	125	310	95	290	805	135	135	75	95
30	260	10	295	310					-75	270	160	185
31	175	370	-10	430					290	255	-705	290
(a)	292	393	313	380	241	380	366	428	264	351	339	357
(b)	260	393	215	259	249	353	299	424	244	339	305	357
Mean	(a) 345		(b) 282		(a) 354		(b) 331		(a) 328		(b) 311	

	APRIL, factor 3·90				MAY, factor 3·99				JUNE, factor 4·02			
	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
	volts per metre											
1	165	315	360	410	160	305	-520	35	245	245	60	305
2	200	305	-1310	375	255	-50	145	440	135	210	255	465
3	175	305	400	350	220	440	145	290	245	305	Z±	-610
4	210	-845	165	540	170	-195	195	380	35	135	245	255
5	330	540	200	350	160	290	195	350	110	245	185	305
6	235	315	290	435	400	585	160	205	245	220	145	160
7	270	385	245	210	195	380	330	350	195	320	210	415
8	130	330	130	435	10	520	350	340	295	295	195	345
9	200	305	185	455	290	340	195	195	500	610	480	330
10	340	260	185	455	10	10	390	180	75	Z±	440	160
11	185	385	280	515	120	Z-	365	315	135	230	170	270
12	235	680	210	375	415	180	-	205	295	125	245	295
13	220	490	175	470	160	270	135	205	125	75	195	125
14	245	400	220	140	270	410	245	340	125	210	110	125
15	185	645	385	680	270	425	270	340	255	270	195	210
16	360	480	470	360	220	340	270	245	145	245	210	345
17	280	360	95	420	180	315	270	350	-100	170	145	280
18	140	210	130	290	270	510	255	315	220	-195	230	295
19	115	490	420	200	230	535	280	245	280	210	75	100
20	245	490	185	235	145	135	180	245	60	230	160	100
21	105	420	270	130	195	270	220	245	145	220	185	185
22	130	105	210	480	75	270	120	85	145	125	170	-
23	290	270	175	360	85	110	220	-25	210	305	145	245
24	290	385	150	165	-815	230	180	475	245	270	145	210
25	220	210	175	175	120	305	95	95	185	255	110	210
26	175	280	305	165	120	Z±	85	230	245	210	145	245
27	185	400	185	330	290	460	160	230	145	110	100	170
28	200	210	130	130	195	245	110	160	125	100	295	230
29	-175	375	150	150	170	Z±	-95	-95	270	210	125	100
30	220	260	150	Z±	245	205	195	340	100	230	170	135
31					95	-110	220	400				
(a)	217	366	229	337	158	323	214	270	191	228	191	228
(b)	203	328	179	337	115	280	186	261	183	210	182	231
Mean	(a) 287		(b) 262		(a) 241		(b) 211		(a) 209		(b) 201	

The potential gradient is reckoned as positive if the potential increases upwards. For indeterminate potential gradient the following notation is used: Z+, indeterminate, positive value; Z-, indeterminate, negative value; Z±, indeterminate, in magnitude and sign.

(a) Mean of all positive readings. (b) Mean from all complete days using both positive and negative readings.

POTENTIAL GRADIENT (reduced to level surface, Paddock site)
Kelvin electrograph standardized by Wilson readings, underground laboratory
Mean values for periods of sixty minutes between exact hours, G.M.T.

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	JULY, factor 4·00				AUGUST, factor 4·15				SEPTEMBER, factor 3·94			
	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
	volts per metre											
1	35	245	170	195	85	610	425	485	145	290	215	240
2	160	220	170	185	400	550	425	460	145	170	240	Z±
3	195	135	160	205	485	335	400	525	120	290	215	275
4	160	75	50	135	400	185	125	335	145	190	145	155
5	85	280	170	195	210	695	425	485	170	205	180	300
6	160	270	205	220	400	670	525	550	130	310	170	250
7	195	270	145	185	485	670	360	460	275	360	145	145
8	195	280	185	160	485	695	460	400	110	240	230	310
9	10	245	145	195	25	610	360	485	85	300	190	360
10	100	195	195	135	250	485	485	335	170	265	230	155
11	170	205	85	185	425	525	210	460	85	230	155	170
12	195	110	220	450	485	275	550	1120	275	300	-335	-310
13	195	255	195	305	485	635	485	760	215	325	230	300
14	205	205	85	315	525	525	210	795	110	250	230	215
15	100	205	160	270	250	525	400	670	230	155	240	70
16	160	255	170	195	400	635	425	485	205	265	190	240
17	245	355	185	450	610	885	460	1120	275	385	230	370
18	85	120	220	365	210	300	550	910	310	360	205	325
19	185	220	145	270	460	550	360	670	505	230	205	310
20	145	245	160	365	360	610	400	910	170	395	215	350
21	145	185	135	230	360	460	335	575	230	455	170	130
22	230	315	135	255	575	795	335	635	110	370	180	180
23	365	340	145	195	910	845	360	485	190	130	290	300
24	230	120	170	355	575	300	425	885	240	370	240	600
25	280	245	135	315	695	610	335	795	310	325	155	420
26	415	315	145	245	1035	795	360	610	130	265	170	300
27	145	490	220	450	360	1220	550	1120	155	180	145	190
28	170	465	245	220	425	1160	610	550	50	60	230	325
29	230	600	245	355	575	1490	610	885	170	370	190	240
30	170	305	85	100	425	760	210	250	300	445	155	230
31	75	110	145	255	185	275	360	635				
(a)	175	254	162	257	437	635	404	640	192	283	199	266
(b)	175	254	162	257	437	635	404	640	194	287	180	246
Mean	(a) 212		(b) 212		(a) 529		(b) 529		(a) 235		(b) 227	

	OCTOBER, factor 4·03				NOVEMBER, factor 4·05				DECEMBER, factor 4·22			
	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
	volts per metre											
1	175	425	250	485	135	110	210	150	Z±	1620	635	165
2	165	215	225	385	110	410	420	335	150	125	280	15
3	235	235	115	225	160	185	310	410	100	100	190	290
4	215	370	200	240	125	260	385	470	305	25	305	555
5	335	585	335	850	200	420	310	380	195	255	265	255
6	200	350	215	715	320	595	410	160	100	-90	365	65
7	115	250	325	515	Z±	-1060	75	545	75	150	255	50
8	315	335	275	515	200	360	445	570	50	505	505	-115
9	100	75	335	475	445	605	580	645	-380	-15	355	-305
10	425	325	375	525	595	580	435	470	115	240	215	-115
11	315	475	300	350	395	345	545	480	190	215	240	240
12	85	365	Z±	775	345	545	455	495	-820	265	630	570
13	500	525	285	475	410	395	455	545	175	340	140	290
14	150	Z±	185	750	235	410	285	285	200	Z±	Z±	365
15	535	465	-350	550	175	250	260	-60	340	760	405	630
16	265	375	185	75	25	125	195	480	305	685	470	530
17	100	250	350	200	245	590	395	360	365	495	-	165
18	115	375	Z±	250	135	260	330	410	355	870	520	770
19	465	615	250	525	210	320	380	160	545	495	405	405
20	285	400	275	450	320	480	410	520	255	545	645	545
21	225	300	385	450	505	455	470	195	240	470	470	745
22	235	175	300	275	110	505	410	395	355	440	505	495
23	200	475	225	485	370	615	480	505	440	630	630	470
24	215	185	335	350	430	630	230	645	430	685	580	530
25	150	275	-615	750	610	600	520	660	315	645	280	925
26	Z±	365	275	435	175	530	570	690	620	1480	1035	1000
27	335	1335	275	465	790	680	815	1470	630	200	620	305
28	350	715	475	350	1615	975	825	1085	420	455	530	-15
29	235	535	520	315	1495	1320	815	740	240	495	430	645
30	150	250	465	550	520	850	925	Z±	390	340	140	-580
31	975	1235	500	450					-190	630	480	-1010
(a)	272	429	309	458	393	497	445	509	293	506	432	441
(b)	289	435	253	444	389	484	441	487	212	426	425	292
Mean	(a) 367		(b) 355		(a) 461		(b) 450		(a) 418		(b) 339	

The factor used for converting the potential at the collector to potential gradient in volts per metre in the open is given for each month.

Annual means					
(a)	260	387	300	381	
(b)	246	369	269	353	
	(a) 332		(b) 309		

POTENTIAL GRADIENT (reduced to level surface): DIURNAL INEQUALITIES

The departures from the mean of the day are adjusted for non-cyclic change†

177 KEW OBSERVATORY — Selected quiet days

	Hour G.M.T. 0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Non-cyclic change†	Mean
	volts per metre																									
Jan.	−14	−48	−56	−54	−117	*−137*	−102	−21	+78	+87	+67	+53	−28	−88	−70	−59	+6	+41	+126	*+142*	+106	+80	+3	+7	···	315
Feb.	−46	−72	−107	−117	*−138*	−117	−90	−17	+46	+101	+25	+53	+29	+12	+10	+15	+49	+99	+95	*+115*	+54	+29	+1	−31	−31	411
Mar.	−63	−71	−61	−77	−76	−72	−44	0	+25	+35	+47	+58	+24	−7	−7	−10	−4	+23	+78	*+123*	+81	+45	−9	−36	+23	377
Apr.	−30	−33	−43	−63	−52	−1	+44	+70	+76	+40	−22	−44	*−66*	−57	−64	−58	−52	−40	−5	+62	*+118*	+101	+79	+41	+16	271
May	−20	−24	−40	+6	+4	+48	+112	*+144*	+121	+56	−39	−56	−73	−59	*−63*	−59	−48	−26	−18	+16	−13	+5	+22	+7	−22	256
June	+10	+5	+9	+11	0	+17	+33	*+46*	+42	+30	−10	−35	*−44*	*−44*	−42	−37	−25	−37	−20	−14	+13	+40	+19	+37	···	206
July	−15	−31	−34	−30	−19	+5	+23	+48	*+70*	+64	+21	0	−30	−52	*−56*	−50	−33	−7	+15	+6	+22	+22	+36	+24	+23	224
Aug.	+13	+5	−28	−22	−10	−5	+26	+69	*+86*	+62	−25	−36	−47	−49	−42	−45	*−67*	−58	−28	+22	+43	+56	+29	+31	−2	228
Sept.	−5	−1	−9	−1	−28	−28	+20	*+70*	+59	+41	+10	−19	−49	*−60*	−53	−45	−38	−37	+8	+41	+48	+26	+28	+23	+7	261
Oct.	−75	−101	*−119*	−96	−75	−66	−30	+28	+43	+64	+10	−45	−61	−45	−46	+3	+32	+77	+126	+123	*+137*	+105	+50	−33	+31	346
Nov.	−64	−115	*−124*	−107	−89	−93	−33	−5	+42	*+111*	+85	+70	+35	0	+6	−13	+37	+48	+74	+72	+28	+37	+18	−21	+50	402
Dec.	−112	−129	*−148*	−131	−97	−80	−51	+6	+84	*+183*	+173	+171	+71	+29	−28	+44	+44	+83	+71	+65	+37	−66	−110	−102	···	530
Year	−35	−51	*−63*	−57	−58	−44	−8	+37	+64	*+73*	+29	+14	−20	−35	−38	−26	−8	+14	+43	+64	+56	+40	+14	−4	···	319
Winter	−59	−91	−109	−102	*−110*	−107	−69	−9	+63	*+121*	+87	+87	+27	−12	−21	−3	+34	+68	+91	+99	+56	+20	−22	−37	···	415
Equinox	−43	−51	−58	*−59*	−58	−42	−3	+42	+51	+45	+11	−13	−38	−42	−43	−27	−15	+6	+52	+87	*+96*	+69	+37	−1	···	314
Summer	−3	−11	−23	−9	−6	+16	+49	+77	*+80*	+53	−13	−32	−49	*−51*	*−51*	−48	−43	−32	−13	+7	+16	+31	+27	+25	···	229

Winter: January, February, November, December
Equinox: March, April, September, October
Summer: May to August

† See p. 10, *Observatories' Year Book, 1938.*

AIR POLLUTION: HOURLY MEANS FOR EACH MONTH

178 KEW OBSERVATORY — Complete days only

	Hour G.M.T. 0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	No. of days used
	milligrams per cubic metre																									
Jan.	0·04	0·03	0·03	0·02	0·02	*0·02*	0·02	0·05	0·07	0·07	0·06	0·05	0·05	0·05	0·07	0·07	0·08	0·12	0·12	0·11	*0·13*	0·09	0·07	0·05	0·06	31
Feb.	0·09	0·08	0·08	0·08	0·07	*0·05*	*0·05*	0·08	0·11	0·10	0·09	0·09	0·08	0·07	0·05	0·06	0·07	0·13	0·17	*0·19*	0·19	0·18	0·17	0·13	0·10	29
Mar.	0·23	0·19	0·16	0·15	0·15	*0·13*	0·14	0·19	0·20	0·23	0·20	0·18	0·15	0·15	0·15	0·15	0·17	0·25	0·32	*0·33*	0·33	0·30	0·26	0·22	0·21	31
Apr.	0·08	0·07	0·07	0·07	0·08	0·10	0·12	*0·15*	0·09	0·04	0·03	0·02	*0·01*	0·01	0·01	0·02	0·01	0·02	0·05	0·11	0·12	0·09	0·08	0·08	0·06	30
May	0·05	0·05	0·05	0·05	0·06	0·08	0·07	0·08	0·06	0·04	0·04	0·03	*0·03*	*0·03*	0·03	0·03	0·03	0·03	0·05	0·05	0·07	*0·09*	0·07	0·06	0·05	31
June	0·02	0·02	0·02	0·03	0·03	0·03	*0·03*	0·03	*0·01*	*0·01*	0·01	0·02	0·01	0·01	0·01	0·01	0·01	0·02	0·01	0·01	0·02	0·03	0·02	0·02	0·02	30
July	0·03	0·03	0·03	0·03	0·04	*0·05*	*0·05*	0·04	0·03	0·02	0·01	0·01	0·00	*0·00*	*0·00*	*0·00*	0·00	0·00	0·00	0·01	0·02	0·03	0·03	0·03	0·02	31
Aug.	0·01	0·01	0·02	0·01	0·03	0·02	0·02	*0·03*	0·02	*0·03*	*0·03*	0·01	0·01	0·01	0·01	0·01	0·01	0·01	0·01	*0·00*	0·01	0·01	0·01	0·01	0·01	31
Sept.	0·06	0·05	0·04	0·03	0·03	0·04	0·05	0·07	0·06	0·03	0·02	0·01	*0·01*	*0·01*	0·02	0·01	0·02	0·03	0·04	0·08	*0·09*	*0·09*	0·07	0·07	0·04	30
Oct.	0·17	0·15	0·13	0·12	0·13	0·17	0·20	0·26	0·30	0·24	0·22	0·20	0·13	0·12	*0·10*	0·11	0·14	0·19	0·25	*0·31*	0·29	0·28	0·26	0·21	0·19	31
Nov.	0·32	0·27	0·25	0·24	0·24	*0·23*	0·26	0·29	0·34	0·39	0·43	0·38	0·29	0·33	0·33	0·36	0·42	0·48	0·52	*0·55*	0·53	0·50	0·44	0·40	0·37	30
Dec.	0·19	0·19	0·18	0·14	*0·11*	*0·11*	0·14	0·16	0·23	0·29	0·31	0·32	0·30	0·29	0·25	0·27	0·31	0·34	*0·35*	0·33	0·34	0·27	0·25	0·19	0·24	31
Year	0·11	0·09	0·09	*0·08*	*0·08*	0·09	0·10	0·12	0·13	0·12	0·12	0·11	0·09	0·09	0·09	0·09	0·11	0·13	0·16	0·17	*0·18*	0·16	0·14	0·12	0·11	366
Winter	0·16	0·14	0·13	0·12	0·11	*0·10*	0·12	0·15	0·19	0·21	0·22	0·21	0·18	0·19	0·17	0·19	0·22	0·27	0·29	0·29	*0·30*	0·26	0·23	0·19	0·19	121
Spring	0·15	0·13	0·11	0·11	0·11	0·11	0·13	0·17	0·15	0·13	0·11	0·10	0·08	*0·08*	0·08	0·09	0·09	0·13	0·19	0·22	*0·23*	0·19	0·17	0·15	0·13	61
Autumn	0·11	0·10	0·09	0·07	0·08	0·11	0·13	0·17	0·18	0·13	0·12	0·11	0·07	0·07	*0·06*	0·06	0·08	0·11	0·15	0·19	*0·19*	0·19	0·17	0·14	0·11	61
Summer	0·03	0·03	0·03	0·03	0·04	0·05	0·04	*0·05*	0·03	0·03	0·02	0·02	*0·01*	*0·01*	*0·01*	0·01	0·01	0·01	0·02	0·02	0·03	0·04	0·03	0·03	0·03	123